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JUNE 2015

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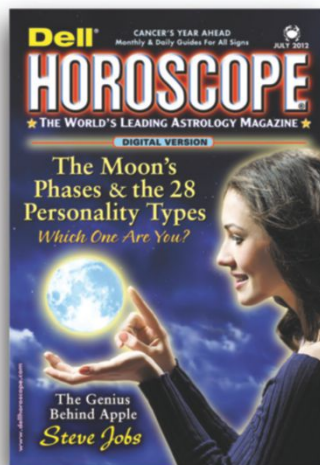
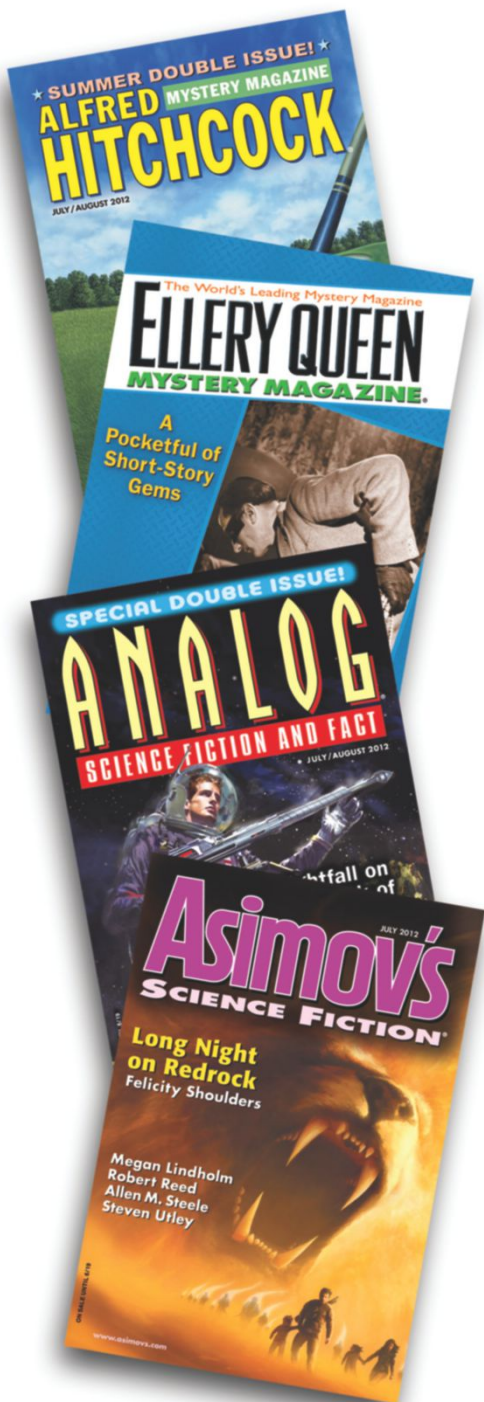
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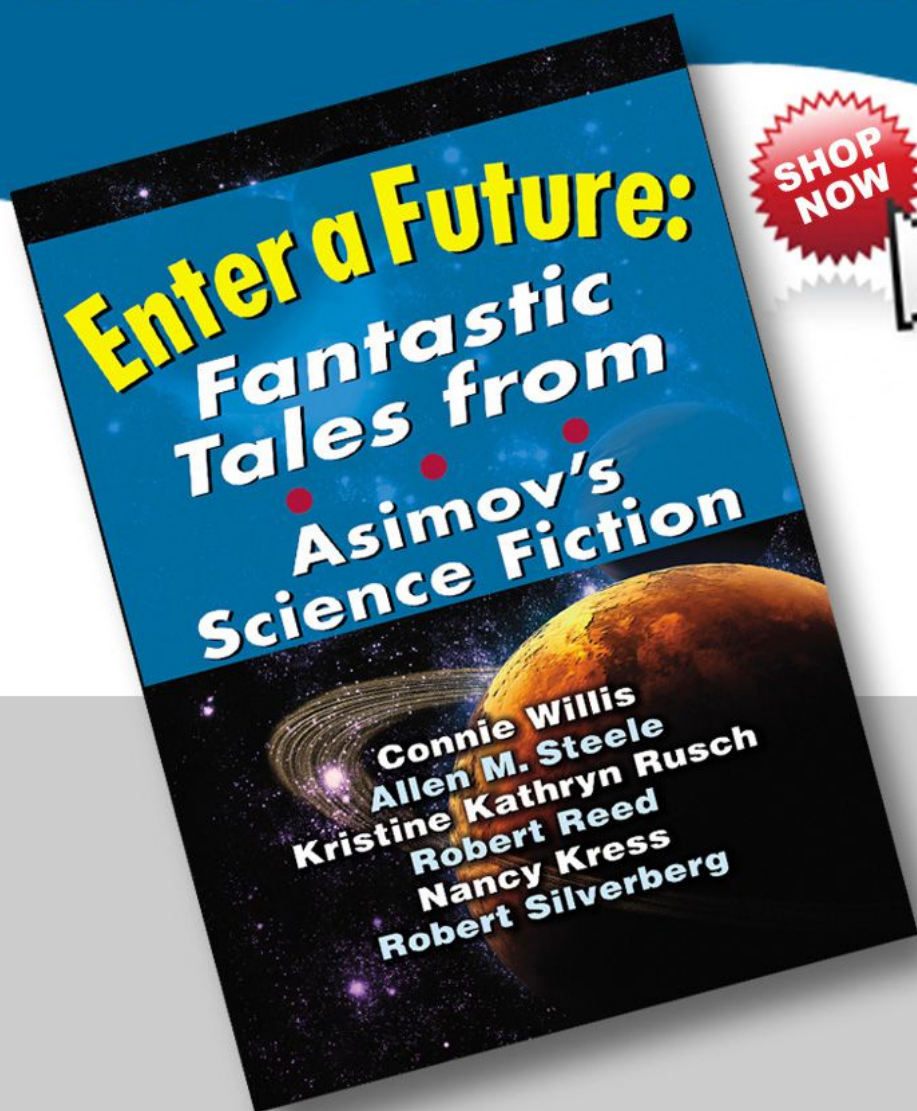
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**JUNE 2015**

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## TEACHING SCIENCE FICTION, or Where Do We Come From? What Are We? Where Are We Going?

Everyone has a hunger for science fiction—astronauts, elementary school children and university students, girls and boys, women and men—people of every age, background, and occupation throughout the world.

But what *is* SF? Galaxy-spanning space opera? Alternate history? Elegantly reasoned philosophical fictions through which humans, or human stand-ins, such as aliens, explore the myriad possibilities that scientific thinking and technological creativity have wrought?

Science fiction is all of these and more.

Definitions of science fiction pop up like mushrooms after a rain. I prefer Isaac Asimov's: "Science fiction can be defined as that branch of literature which deals with the reaction of human beings to changes in science and technology." And I will add that SF is a literature that addresses the questions Gauguin set forth as the title of his famous painting, *Where Do We Come From? What Are We? Where Are We Going?*

I have been engaging students with science fictional thinking at Georgia Tech since 2010, when I was invited by Lisa Yaszek, Director of Undergraduate Studies in the School of Literature, Media, and Communication, a distinguished SF scholar and the driving force behind LMC's science fiction program, to teach.

The hunger for SF is especially strong in the students I instruct at Georgia Tech. Perhaps it is because they are, in no small measure, learning, creating, and living SF in the Aerospace Systems Design Lab, a renowned robotics lab, through weekly nanotech research talks, and by investigating the history of science and technology—not in isolation, but seen as arising from and concurrently driving culture. It is no wonder that they seek to learn how to read and analyze science fiction, to write science fiction, and to see the history of science and technology

through a science fictional lens.

One would think that reading science fiction would be the easiest thing in the world for these students, but this is not necessarily so. Students are challenged by William Gibson's *Neuromancer* on encountering multiple neologisms—"ice," "simstim," or, even, "cyberspace," as first revealed by Gibson srying, through the blur of rapid technological change, an entirely new world. Had they picked up this book in a store, they may have been as daunted as if faced with a page of Chaucer. Instead, learning to think through what "matrix" or "flip" might mean, given the context, opened to them one of the delights of written science fiction—learning a new language. In Joanna Russ's *The Female Man*, they encounter postmodern construction, biting social commentary, and a rainbow of feminist theory transformed into colliding worlds. Octavia Butler's *Dawn* poses ethical dilemmas about power that open discussions about postcolonialism. And innumerable short stories, each a pocket universe, immerse students in thinking about ecology (Frank Herbert's "Seed Stock"), the hilarious possibilities of theoretical physics as an explanation for our frequent space-time confusion (Connie Willis's "At the Rialto"), and a terroristic humanity-ending virus distributed by a biologist who wants to save Earth, envisioned by him as a woman, from further ravaging (James Tiptree, Jr.'s "The Last Flight of Dr. Ain"). To read science fiction of any age is to connect to the technological and social continuum in which it was written in specific, revealing detail, as my students did in the class "From the Earth to the Moon: The Sixties" when they read "There Will Come Soft Rains." Ray Bradbury's story shows, with stunning compactness and impact, the aftermath of the nuclear attack that everyone

in the mid-fifties feared, and helped students understand the politics of the era.

There are depths in SF literature that are not always apparent in the media's depiction of high-tech weapons, space heroines, and dystopian futures. Reading SF often requires a process of thoughtful analysis to get to the frisson of realization.

Writing science fiction is a fish of a different color. In my Creative Writing class, students may submit stories of any style, mode, or genre. However, when they write SF, the bar is high. Setting a story in a ready-made, media-spawned dystopian future may give a budding writer practice in writing dialogue, but the main task of the science fiction writer is to take advantage of the sheer creative breadth opened by thinking science fictionally, to be wholly original, to move the reader to an entirely new place. Giving a unique, imagined reality the depth of good fabulous literature requires research, the hard work of hammering out a first draft, and then creating, through the process of as many rewrites as it takes, a seamless work written in one's own voice.

I encourage students to submit their stories to the Dell Magazines Award for Undergraduate Excellence in Writing Science Fiction and Fantasy contest, administered by the editor of this magazine, Sheila Williams, and by Rick Wilber, SF author and Professor of Mass Communications and Creative Writing at the University of South Florida. One of my students was an honorable mention in the Dell Award contest, and another won a \$1,000 prize in The Future Powered by Fiction contest.

So—what *do* we teach when we teach science fiction literature and writing?

We teach not just one new language, but as many as contained in the fiction we read.

We give students tools with which to speculate how our real or imagined technologies might change us. We give them infinite time, and infinite possibilities.

And we give them three vital questions with which to play: Where do we come from? What are we? Where are we going?

Then we look forward to their myriad replies. ○

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## THE WORLD TO END LAST MONTH

A close look at the headline just above reveals a puzzling confusion of tenses. The phrase “world to end” carries a distinctly predictive quality, whereas “last month” shows a certain degree of retrospectiveness. It is reasonable to ask what is going on here.

Some of the confusion stems from the fact that I write these columns far ahead of the cover dates of the issues in which they appear. It takes time to set a magazine in type, print, and bind it, and send it out. So, although this piece is intended for the issue to be dated June 2015, I’m actually writing it in September 2014.

The “last month” part of the title refers to a recent prediction that the world is going to end in April 2015. If you’re reading this in May 2015, you can feel confident that the world didn’t end as predicted last month. (If things went otherwise, it’s likely that you won’t be seeing this at all.) Since I’m writing now about what is for me still a future event that will lie in the past by the time you read this, you can readily understand that a certain awkwardness of tense will inevitably be involved.

The prediction of imminent doom under whose shadow I presently live is not, of course, the first I’ve had to worry about. The earliest one I can remember dates from 1944, when a preacher in (I think) Missouri announced that the world would end in (I think) September of that year. I was then about to enter the fourth grade, and still counted my age in single-digit numbers. I had already gathered quite a bit of knowledge—I knew the names of most presidents, most of the states of the Union (there were forty-eight then), even the recent kings and queens of England shown on the postage stamps that I collected. But knowledge is not the same thing as wisdom, and, there on the verge of the fourth grade, I had no way of being

sure that the world *wouldn’t* end in the upcoming September. After all, I had seen the story about it in the newspaper and I was still young enough to believe that things I read in the newspaper were true, by and large. The world didn’t end in September 1944. It hasn’t ended on any of the other dates predicted since then. As of this morning I can’t be sure that it won’t end in April 2015, though my guess is that it won’t. Though it *will* end sooner or later, as things in this universe are destined to do, my bet is that the end will come later rather than sooner (so renew your subscription right now).

Worrying about the end of the world surely goes back to the first time human beings observed a total eclipse of the sun, and probably earlier. By 365 A.D., one Hilary of Poitiers had asserted that that would be the world’s final year; Martin of Tours issued a similar proclamation a few years later; the Spanish monk Beatus of Libana subsequently calculated that Doomsday would arrive on April 6, 793; the year 1000 was widely believed to be bringing the finale for us; and so on and so on. Benjamin Creme took out an ad in the *Los Angeles Times* to tell us that Jesus would return in June 1982 and wrap things up for us; in 1985 the preacher Lester Sumrall published a book called *I Predict 1985*; a 1987 prediction had it that Halley’s Comet would crash into the Earth on April 29 of that year; various religious leaders postulated the Rapture and the End on September 11, 1986, October 3 of that year, September 28, 1992, and October 28, 1992. Here in the San Francisco Bay Area, the minister Harold Camping pegged the Apocalypse for September 6, 1994, later revising the date to October 21, 2011, after which he retired from his ministry and apologetically admitted



that predicting the day of the Rapture was impossible and any attempt to be precise about it was sinful. Nevertheless, the year 2011 was bespeckled with other apocalyptic prophecies regarding 2012, based on calculations allegedly drawn from the ancient Mayan calendar.

I'm here to tell you that that didn't happen, nor was the world swallowed by a black hole in 2010 as a result of the activation of the Large Hadron Collider experiment. The fact is that we are still here, and—despite the latest date for our finale of April 2015, my bet is that we'll still be okay by the time the June 2015 issue of this magazine appears, or I would not be expending my few precious remaining hours writing this.

Foreseeing the end of the world has been the business of SF writers ever since there was such a thing as science fiction, and back before it. What sort of end-of-the-world stories our primordial preliterate ancestors told we will never know, but the oldest such tale that has come down to us, the five-thousand-year-old Sumerian epic of Gilgamesh, describes a deluge that drowns the whole Earth, save only a certain Ziusudra, who manages to save his family and set things going again. The theme recurs in many later versions: the Babylonian one gives the intrepid survivor the name of Utnapishtim, the Hebrews called him Noah, to the ancient Greeks he was Deucalion, and in the Vedic texts of India he is Manu. Details differ, but the essence is always the same: the gods, displeased with the world, destroy it but then bring mankind forth for a second try.

The Norse myths give us a terrible frost, the Fimbulwinter, in which all things die except a man and a woman who survive by hiding in a tree; they follow the usual redemptionist course and repopulate the world, but then comes an even greater cataclysm, Ragnarok, the doom of the gods themselves, in which the stars fall, the earth sinks into the sea, and fire consumes everything—only to be followed by yet another rebirth and an era of peace and plenty. And the Christian tradition provides the spectacular

final book of the Bible, the Revelation of St. John, in which the wrath of God is visited upon the Earth in a host of ways (fire, plague, hail, drought, earthquakes, flood, etc.), leading to the final judgment and the redemption of the righteous. The Aztecs, too, had myths of the destruction of the world by fire—several times over, in fact—and so, of course, did the Mayas.

The nineteenth century gave us many apocalyptic visions: such books as Jean-Baptiste de Grainville's *The Last Man, or Omegarus and Syderia* (1806) and Mary Shelley's *The Last Man* (1826), written under the shadow of a worldwide epidemic of cholera. Edgar Allan Poe sent a comet into the Earth in "The Conversation of Eros and Charmion" (1839). French astronomer Camille Flammarion's novel of 1893, *La Fin du Monde* (*Omega* in its English translation) brought the world to the edge of doom—but only to the edge—as a giant comet crosses our path. H.G. Wells told a similar story of near-destruction in "The Star" (1897). In *The Time Machine* (1895), Wells had already taken his time traveler to the end of life on Earth and beyond. ("All the sounds of man, the bleating of sheep, the cries of birds, the hum of insects, the stir that makes the background of our lives—all that was over.")

Flammarion's compatriot Jules Verne very likely drew on the latter sections of *Omega* for his novella, "The Eternal Adam" (1905). Verne espouses a cyclical view of the world: Earth is destroyed by a calamitous earthquake and flood, but the continent of Atlantis wondrously emerges from the depths to provide a new home for the human race; and we are given a glimpse, finally, of a venerable scholar of the far future looking back through the archives of humanity, "bloodied by the innumerable hardships suffered by those who had gone before him," and coming, "slowly, reluctantly, to an intimate conviction of the eternal return of all things."

The eternal return! It is the theme of so much of this apocalyptic literature. That phrase of Verne's links his story to the core of Flammarion's own belief that our own little epoch is "an imperceptible wave



on the immense ocean of the ages" and that mankind's destiny is to be born again and again into universe after universe, each to pass on in its turn and be replaced.

Rebirth after catastrophe is to be found, also, in M.P. Shiel's *The Purple Cloud* (1901), in which we are overwhelmed by a mass of poisonous gas, leaving only one man—Adam is his name, of course—as the ostensible survivor, until he finds his Eve and life begins anew. No such renewal is offered in Frank Lillie Pollock's terminally apocalyptic short story "Finis" (1906), though, which postulates a gigantic central star in the galaxy whose light has been heading toward us for an immense span of time and now finally arrives, so that "there, in crimson and orange, flamed the last dawn that human eyes would ever see."

Few readers turn to apocalyptic tales these days for reassurance that once the sins of mankind have been properly punished, a glorious new age will open; but, even so, the little *frisson* that a good end-of-the-world story supplies is irresistible to writers, and the bibliography of apocalyptic fantasy is immense. Garrett P. Serviss' *The Second Deluge* (1912) drowns us within a watery nebula. G. Peyton Wertenbaker's "The Coming of the Ice" (1926) brings the glaciers back with a thoroughness that makes the Norse Fimbulwinter seem like a light snowstorm. Philip Wylie and Edwin Balmer's *When Worlds Collide* (1933) tells us of an awkward astrophysical event with very unpleasant consequences for our planet. Edmond Hamilton's "In the World's Dusk" (1936) affords a moody vision of the end of days, millions of years hence, when one lone man survives and "a white salt desert now covered the whole of Earth. A cruel glaring plain that stretched eye-achingly to the horizons . . ." Robert A. Heinlein's story "The Year of the Jackpot" (1952) puts the end much closer—1962, in fact—when bad things begin to happen all around the world, floods and typhoons and earthquakes and volcanic eruptions, culminating in a lethal solar catastrophe. J.T. McIntosh's *One in Three Hundred*

(1954) also has the sun going nova, at novel length. And, of course, the arrival of atomic weapons in 1945 set loose a proliferation of nuclear-holocaust stories.

I suppose there's a strange comfort in such thoughts: "If I must die, how good that all of you must die also!" But the chief value of apocalyptic visions, I think, lies elsewhere than in that sort of we-will-all-go-together-when-we-go spitefulness. As we examine the great apocalyptic myths we see that not only death but resurrection is usually involved in the story—a bit of eschatological comfort, of philosophical reassurance that existence, though finite and relatively brief for each individual, is not totally pointless. Yes, we have done evil things and the gods are angry and the world is going to perish, in a moment, in the twinkling of an eye, but then will come a reprieve, a second creation, a rebirth of life, a better world than the one that has just been purged.

The possible variations on the theme are endless. As Robert Frost wrote nearly a century ago,

*Some say the world will end in fire,  
Some say in ice.*

*From what I've tasted of desire  
I hold with those who favor fire.  
But if it had to perish twice,  
I think I know enough of hate  
To know that for destruction ice  
Is also great  
And would suffice.*

Fire or ice, one or the other—who knows? The final word on finality is yet to be written. But what is certain is that we will go on speculating about it, right until the end.

See you next month . . . I hope. ○



## THE OPTIMIST'S TALE

*saved*

Say, have you heard the news? The apocalypse might have to be canceled. Maybe we're not doomed after all!

At least, there are some in the science fiction community who believe that, although our civilization faces many pressing problems, there are solutions at hand. The end is nowhere near, they say. Who cares that their view is in conflict with a perceived trend in science fiction's corner of popular culture. Over the past few years, we have all seen stories on the page and screen that have wallowed in disaster and dystopia. But if you are looking for signs people are growing weary of pessimism, look no further than the movement coalescing around the Hieroglyph Project.

At the forefront of this movement is **Neal Stephenson** <[nealstephenson.com](http://nealstephenson.com)>, author of such celebrated novels as *The Diamond Age*, *Cryptonomicon*, and *Anathem*. In 2011 he wrote an article for the World Policy Institute called **Innovation Starvation** <[worldpolicy.org/journal/fall2011/innovation-starvation](http://worldpolicy.org/journal/fall2011/innovation-starvation)>. In it, he worries "that our inability to match the achievements of the 1960s space program might be symptomatic of a general failure of our society to get big things done." He recalls speaking at a conference sponsored by **Future Tense** <[newamerica.org/future-tense](http://newamerica.org/future-tense)>. "The audience at Future Tense was more confident than I that science fiction [SF] had relevance—even utility—in addressing the problem." He cites two theories that explain science fiction's influence on our culture: it "inspires people to

choose science and engineering as careers" and it "supplies a plausible, fully thought-out picture of an alternate reality in which some sort of compelling innovation has taken place." Citing the work of writers like Isaac Asimov, Robert Heinlein, and William Gibson, Stephenson maintains that stories about robots, space travel, and a user-friendly internet become models of what-might-be that "serve as hieroglyphs—simple, recognizable symbols on whose significance everyone agrees." Since publishing this article Stephenson has continued to advocate for a science fiction that helps create the future.

And he isn't talking about the #!%\$# zombie apocalypse.

*hieroglyphics*

Some may cavil at calling the Hieroglyph Project a movement, but if it's not, it surely presents as one. Arizona State University has created the ambitious website **Project Hieroglyph** <[hieroglyph.asu.edu](http://hieroglyph.asu.edu)> that serves as a portal to articles, interviews, video, even a massive multiplayer online educational game for those who believe in Hieroglyph's goals. As well, it is a place where science fiction writers and technology professionals can hang out digitally. You can also watch the message spread from this website; as I write this there have been approving notices on **NPR** <[sciencefriday.com/segment/09/26/2014/stories-to-make-you-think-big.html](http://sciencefriday.com/segment/09/26/2014/stories-to-make-you-think-big.html)>, the **BBC** <[bbc.com/news/magazine-28974943](http://bbc.com/news/magazine-28974943)>, **Nature** <[nature.com/nature/journal/v513/n7517/full/513170a.html](http://nature.com/nature/journal/v513/n7517/full/513170a.html)>,

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Perhaps the Hieroglyph Project's most significant accomplishment to date is an anthology called—surprise!—**Hieroglyph** <[harpercollins.com/9780062204691/hieroglyph](http://harpercollins.com/9780062204691/hieroglyph)>. Published by Harper Collins in September 2014 and edited by Ed Finn and Kathryn Cramer, it features a starry table of contents. Contributors include **Cory Doctorow** <[craphound.com](http://craphound.com)>, **Elizabeth Bear** <[elizabethbear.com](http://elizabethbear.com)>, **Bruce Sterling** <[brucesterling.tumblr.com](http://brucesterling.tumblr.com)>, **Kathleen Ann Goonan** <[goonan.com](http://goonan.com)>, and, of course, Neal Stephenson, to name just five. I have not had the pleasure of reading this book, although I have no doubt given the quality of the writers and editors involved that it is well worth your money. There is a generally favorable story-by-story review at **Locus Online** <[locusmag.com/Reviews/2014/10/lois-tilton-reviews-short-fiction-early-october-5](http://locusmag.com/Reviews/2014/10/lois-tilton-reviews-short-fiction-early-october-5)>. The **Wall Street Journal** <[online.wsj.com/articles/book-review-hieroglyph-edited-by-ed-finn-and-kathryn-cramer-1411762756](http://online.wsj.com/articles/book-review-hieroglyph-edited-by-ed-finn-and-kathryn-cramer-1411762756)> opines, "This collection could be the shot in the

arm our imaginations need. It's an important book, and not just for the fiction."

However, that last phrase, "... and not just for the fiction," strikes me as curious. It makes me wonder what I am supposed to be about as an SF writer. If I write fiction—just *fiction*—without some higher purpose, am I not reaching my potential? Is there something more to this genre than presenting stories that please readers and engage their imaginations? When I was a young writer, I believed that the very best science fiction centered around thought experiments that pointed the way to what might be. Now, I'm not so sure. The utility of SF for modeling the future is at the center of the Hieroglyph agenda, although it is but the latest iteration of the Gernsbackian notion of future fiction. **Hugo Gernsback** <[sf-encyclopedia.com/entry/gernsback\\_hugo](http://sf-encyclopedia.com/entry/gernsback_hugo)>, historians of our genre will remind you, created the first science fiction magazine as a spin-off from his hobbyist gadgeteer and fringe science 'zine **Science and Invention** <[sf-encyclopedia.com/entry/science\\_and\\_invention](http://sf-encyclopedia.com/entry/science_and_invention)>. Because Gernsback's technophilia is part of our DNA, SF writers have a tendency to believe we can invent our way out of our problems.

But even if optimistically imagining how big things might get done is our job as science fiction writers, I'm not sure that the headlines generated by the Hieroglyph Project are aimed at the right target. Consider this: "Dear Science Fiction Writers: Stop Being So Pessimistic!" from *Smithsonian*. Or this from *Slate*: "Why We Need To Escape From Our Dystopian Sci-Fi Rut." Excuse me, but what dystopian rut? Here are the Hugo Award winners in the novel category from the past five years: 2014: *Ancillary Justice* by Ann Leckie; 2013: *Redshirts: A Novel with Three Codas* by John Scalzi; 2012: *Among Others* by Jo Walton; 2011: *Blackout / All Clear* by Connie Willis, and, in 2010: *The City & the City* by China Miéville, tied with *The Windup Girl* by Paolo Bacigalupi. In two of the five, humanity has conquered the stars, and in another a thriving future civilization

has discovered time travel. One is a fantasy set in the U.K. in 1979 and one is a mash-up of weird fiction and police procedural. If you close an eye and tilt your head, you might see *The Windup Girl* as dystopian, but given the latest data on climate change, I would have to call it rigorous and rather hopeful extrapolation.

The fact is that the vast majority of those writing science fiction today aren't writing apocalyptic dystopias and aren't, I would argue, the ones with whom Neal Stephenson has a dispute. Rather it is Hollywood, which has always understood the profit in making a spectacle of disaster, that is to blame. They've got us all waiting breathlessly for the next episode of the End Times. And in this they have been abetted by the press, which sees our genre as monolithic, so that movies, television, comics, books, and stories are all *sci-fi*. To the bemused reporter on a deadline, a box office smash defines the entire genre. Yes, *The Hunger Games* sequence started as a book, but its press increased exponentially as the movies set records. And zombies are not properly science fiction, but they are nevertheless charged to our account by the media.

*big*

Time for the SF writers to start pulling their weight and supplying big visions that make sense. Hence the Hieroglyph project, an effort to produce an anthology of new SF that will be in some ways a conscious throwback to the practical techno-optimism of the Golden Age.

—Neal Stephenson,  
“Innovation Starvation”

Understand, I have no problem with optimistic science fiction, set in a future in which the quality of life for the majority of people has improved, or at least is no worse than it is today. I've written quite a bit of it myself. And I agree that there comes a time when it is absolutely necessary for a culture to enlarge its vi-

sion. In fact, I am certain that we live in just such a time. However, reasonable people might disagree with exactly which big vision we ought to focus on.

The history of green-lighting big projects is not without its fiascos. In science fiction's Golden Age, America's first megadam was hailed by practical techno-optimists as one of the wonders of the world. **Hoover Dam** <[usnews.com/opinion/articles/2010/06/17/hoover-dams-big-government-lessons](http://usnews.com/opinion/articles/2010/06/17/hoover-dams-big-government-lessons)> demonstrated our ability to undertake hugely ambitious civil engineering projects. Only after the building of the **Glen Canyon Dam** <[usatoday.com/story/news/nation/2013/10/14/glen-canyon-dam-50-years/2981273](http://usatoday.com/story/news/nation/2013/10/14/glen-canyon-dam-50-years/2981273)> did many begin to realize that the costs of dam building might outweigh the benefits. Now as the **Belo Monte Dam** <[forbes.com/sites/kenrapoza/2014/03/07/was-brazils-belo-monte-dam-a-bad-idea](http://forbes.com/sites/kenrapoza/2014/03/07/was-brazils-belo-monte-dam-a-bad-idea)> threatens to displace populations and wreak environmental havoc on the Amazon, sophisticated analyses show that **these big projects can be disasters** <[sarawakreport.org/2014/03/mega-dams-create-economic-disaster-says-top-study](http://sarawakreport.org/2014/03/mega-dams-create-economic-disaster-says-top-study)>.

Even the space program, hailed by the Hieroglyphs as a model, has not been an unalloyed triumph. Now, every right-thinking science fiction reader and writer celebrates NASA's many successes. Most would admit, however, that the **Space Shuttle program** <[nasa.gov/mission\\_pages/shuttle/main/index.html](http://nasa.gov/mission_pages/shuttle/main/index.html)>, despite all of its accomplishments, never came close to meeting its expectations after some thirty years and two hundred billion dollars. Shortly after the shuttle's first launch, another big idea was proposed and endorsed by a clutch of science fiction writers. Ironically, after some two hundred billion dollars and more than thirty years, Ronald Reagan's **Strategic Defense Initiative (aka Star Wars)** <[science.howstuffworks.com/star-wars-program.htm](http://science.howstuffworks.com/star-wars-program.htm)>, parts of which are still ongoing under different names, has yet to have a successful test under real life conditions.



exit

From the New York Times, August 26, 2014:

**U.N. Draft Report Lists Unchecked Emissions' Risks** <[nytimes.com/2014/08/27/science/earth/greenhouse-gas-emissions-are-growing-and-growing-more-dangerous-draft-of-un-report-says.html](http://nytimes.com/2014/08/27/science/earth/greenhouse-gas-emissions-are-growing-and-growing-more-dangerous-draft-of-un-report-says.html)>:

Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reduction in snow and ice, and in global mean-sea-level rise; and it is extremely likely to have been the dominant cause of the observed warming since the mid-20th century," the draft report said. "*The risk of abrupt and irreversible change*

*increases as the magnitude of the warming increases.* (italics mine)

I do agree that we all need to think big, science fiction writers especially. But I doubt we can rely on big technology to save us from climate change. Instead, we need to win the hearts and minds of every person on this planet, help them recognize our peril, and show the way to make changes in the way we all must live.

That's what I believe the higher purpose of science fiction stories ought to be at this moment in history, and I'm happy to support any of Hieroglyph's talented writers, engineers, scientists, and academics who believe the same.

Meanwhile, I'm trying my best to be optimistic. ○

**Django Wexler graduated from Carnegie Mellon University in Pittsburgh with degrees in creative writing and computer science, and worked for the university in artificial intelligence research. Eventually he migrated to Microsoft in Seattle, where he now lives with two cats and a teetering mountain of books.**

**Django is the author of *The Shadow Campaigns*, a military fantasy series published by Roc, and *The Forbidden Library*, a middle-grade fantasy series from Kathy Dawson Books. In his first story for *Asimov's*, the author's knowledge of military tactics is on display throughout his taut account of . . .**

# THE END OF THE WAR

Django Wexler

**O**fficially, the little short-range clearwaves are forbidden, for obvious security reasons. I don't think any operator leaves for her second tour without one, though. Sometimes it's just to hear another voice out in the black, no matter who it belongs to. It can make the difference between finishing the tour and coming back a ghost.

Mine is a junky little affair duct-taped to the side of my main console. I hesitate a bit before hitting the switch, but my spin-up mobs are reporting the hull composition on this piece-of-shit drifter is even worse than I predicted. I've adjusted the build profile for a low-rez encounter, but even so I've got some time. I click the clearwave on, hoping for a familiar voice. It would be nice to talk to Ledra again, or Molly. Anyone but that bitch Andrin.

"Hello, hello," I say, my voice coming back tinny where the clearwave is patched into my suit audio. "Anybody out there?"

There's a long stretch of nothing. I can hear the whirr of the suit fans, the deep rumble of my own mobs chewing into the skin of this ancient hulk. The latter sound isn't real, of course—no air within a million kilometers to carry it—but the mobcom's external sensors pick up vibrations in the hull, and the suit translates it into audio so I can make full use of my precious human sensory integration. That is, after all, why I'm here, why it's worth hauling canned spam like me across the Solar System to rendezvous with flying junk. There are some things we still do better than machines.

I know there's another mobcom on the wreck. I wonder if it is Andrin after all, and she's refusing to speak to me on principle. Or someone else, a newbie who hasn't learned the tricks yet, maybe doesn't even have a clearwave. I could be transmitting into nothing. The first scouts tumble out of the spin-ups, tiny mobs the size of grapes with nothing more energetic aboard than a little compressed gas. I key in a pattern from my library, and they jet off into the dark, changing direction with tiny puffs

and caroming off the walls of the dead ship's corridors. The map on my console, based on old specs, begins to light up and update itself with real-time data.

"Hello," comes a voice from the clearwave. A man's voice.

I raise an eyebrow, pointless as that is in my black-helmeted suit, itself wrapped in the spider-like metal skin of the mobcom. There aren't many male operators. Not the fault of the men, of course, they're as patriotic as the rest of us, but they're just made differently. The male psyche doesn't deal well with the waiting, the confinement, the high-G transits. I've spoken to only a couple of men in the black from our side, and never to a Minoan.

Maybe this encounter won't be as dull as I thought.

"How's it going?" I keep my voice deliberately casual. No sense in raising the gender issue right away. He might get offended, and it's not like there's anyone else to talk to.

"So far, so good," he says. "You?"

"About the same. What's your name? I don't think I know you."

"It's Garret. I don't know anybody yet."

"I'm Miranda. Call me Myr."

"You may as well call me Gar, then."

One of my scouts rounds a corner, about halfway up the ship's length, and vanishes in a spray of vaporized metal. The mobcom analyzes telemetry, determines it was hit by a big laser, fusion-powered. He hasn't been here long enough to crank out any really big mobs yet, and there's not enough extra power in this dump to run them in any case. So that's his mobcom. I draw a circle around the spot on the map and retarget the scouts, curving them around through the ancient, torn decking to try and get a better view.

A few seconds later, one of the little mobs drifts down through an old ventilation shaft and gives me a few frames of video before he blasts it. He's in a big old Mark IV, like a hexagonal slab of metal with eight spider-legs on universal joints. Twice the size of my Mark IX, but with half the output. It carries a lot more armor, not that that matters. I can see his spin-ups on the walls around him, worm-like tendrils tipped with the blue-white sparks of plasma drills, digging through the hull of the old ship for the materials they need. One of them is halfway through building a big, spider-legged mob. I recognize the silhouette even before my console flashes up a recognition. An Afterburner III, at a guess, maybe a IV. Not a great choice for this shitty hulk.

"First tour?" I say. My hands fly across the console, adjusting my build profile to something even faster and more aggressive, trading off power for speed. Some operators don't feel like it's polite to rush a newbie, but I've always been of the opinion that what's important is to win, and fairness be damned.

"Second," he says. "Didn't see a lot of action on my first, though. Three aborts."

I wince. Everyone hates an abort. It means twice as much time in the gel before you get a break. "Did you get to see any action at all?"

"A couple of encounters out near Coldpoint. Got my ass kicked."

"Who was it?"

"Arisa and Gemmelia."

"Ha!" I grin. "Let me guess, Gemmy got you with a big tunnel swarm, right up through the floor?"

"Absolutely." He doesn't sound too embarrassed, which is good. It's important to be able to laugh at your mistakes.

"She loves that trick. Gemmy's great." She and I have tumbled a few times, when we were on the same ship. Gemmy fucks the way she fights, in an all-out attempt to batter her partner into submission. It's good fun, but exhausting.

"She seemed like a fun girl," Gar says. "Do you go for tunnelers too?"

"Now, you know the rules." I put a bit of tease into my voice. "No digging for tactical tips."

"Sorry."

I've got a few small tunnelers in my mix, actually, but more roaches and froggies. A spin-up reports a lucky find—an old emergency battery, with a cache of exotica still inside it. Not enough to build any decent ranged weaponry, but plenty for a batch of Bouncing Bill IVs. One of my favorite mobs, cheap and efficient for quick work. They pour out of the spin-up's hatch, notched oblong things with a magnetic grapple at one end and a bouncer at the other. Like all froggies, they use these tools to alternate pulling themselves toward walls and pushing away, moving on bouncing, irregular paths. A few roaches are ready, too, scuttling insectoid things that stick to any surface they touch.

"So is this your first round on this tour?" I say, as I marshal my mobs.

"Yeah. Ten days in goo to get here. You?"

"This is day ninety-five. Five encounters so far, four wins."

"Damn," he says. "Just my luck to meet someone on a hot streak."

"Actually, I'm just coming off the loss," I say. "So I'm in a bad mood."

"Even worse."

I send out three groups of mobs, following the paths my scouts relay. The first one is a feint, straight at him, moving slow so he'll see it in plenty of time. The other two hook wide, one crawling up through a hole in an old service duct, the other out through an impact crater onto the outer hull of the wreck, under the fast spin of the stars, and then back in through a shattered laser lens.

Another scout dies. I get a glimpse of the Afterburner from its last moments—definitely a III, not a IV—crawling down the corridor with its muzzle smoking like an old-fashioned slug-thrower. It's headed right for my feint, and I order the mobs to scatter into an ambush formation. My other two groups are worming their way toward Gar's mobcom, roaches cutting through the decking with their integrators when ancient battle damage doesn't provide a convenient route.

I send a Bouncing Bill around a corner, straight at the Afterburner. The spider-mob blasts it into a swathe of superheated ions, and the exotica inside escapes its bottle and detonates when it touches vacuum. The explosion isn't close enough to take out the Afterburner, but it blanks the thing's sensors, and the roaches move in, hopping off the walls to cling to the larger mob. They've only got integrators to fight with, little nano-tech mouths that start stripping off the Afterburner's armor, but that's not really the point. I want Gar's attention fully devoted to his big, stupid mob, as it flails in place and twists its legs to knock the persistent little things away. Another burst vaporizes a pair of roaches, but I've already moved on to the main event.

My two flanking groups pounce, roaches in the lead, Bouncing Bills ricocheting in a complex pattern designed for maximum confusion. His mobcom's lasers stutter, sweeping patterns in the air, and my mobs die one by one, but he's got nothing but his integral weaponry to work with. It's not enough to stop them all. One of the Bills dives in among his spin-ups and ejects its exotica, and my display goes white with multiple explosions.

"Ouch." Gar's voice is rueful. "Nice shot."

I flick a scout out of cover to survey the damage. A little bit of exotica isn't enough to seriously damage a brute like the Mark IV, but Gar's spin-ups are all blown to hell, and his external weaponry and sensors are probably seriously degraded. If he sticks around, he'll be at my mercy, since I'll have time to build some seriously dangerous mobs while he fumbles about trying to restart his harvesting.

"Sorry about that," I say. No harm in being polite, after the fact. "Are we done here?"

"Yeah, I think so. Nicely done."

"Try not to let yourself get distracted by the big nasty mobs, especially in a low-rez environment," I say. The urge to give advice trumps the thought that I'm helping out the enemy. "A nice swarm of little ones can be a lot more effective."



"I haven't got the compute power aboard to handle much of a swarm," he says, a little defensively.

I wince; if his Mark IV's processors haven't been upgraded, he's probably right. That's a serious disadvantage. "I'm surprised they send you out like that."

"Needs must. You know the drill." He sighs. "All right, I'm out. Thanks for the chat, Myr."

"Likewise. Talk to you soon, maybe."

My scout watches as his mobcom ignites its torch, blasting the decking underneath it to glowing vapor. In a few seconds, he's gone, accelerating out through the skin of the wreck and into the black toward a rendezvous with a waiting corvette, and probably a dress-down from whatever passes for a superior officer on the Minnoan side of the line.

Victory, as easy as that. I heave a sigh, punch up my long-term build and harvesting profiles, and lean back in my gel-seat to wait.

Twenty hours later, corvette 1121 matches course and speed with the wildly tumbling wreck. In the meantime, my mobs have been busy. Huge ship-killer lasers have blossomed across the derelict, like ugly scabs on the torn skin, each a one-shot exotica-powered weapon capable of blasting an approaching vessel into scrap millions of clicks away. Another factory has been hard at work constructing thrusters, which will fire the harvesters' discarded scrap at high enough velocity to change the course of the wreck to something that will come close enough to our fleet to grab.

1121 only began its approach when I notified it that the ship-killers were in place. Functional ships, even corvettes, are too precious to risk the possibility of enemy presence.

The salvage isn't anything to write home about. It's a seventh-generation wetship, probably a destroyer. The second- or third-generation ships were profligate with materials—heavy metals, exotica, even organics—and are thus the most valuable targets for harvesting. By the seventh generation, resources were already getting scarce, and there's less worth digging out of the old hull. Command probably wouldn't have sent me after it if it hadn't been on a congenial course, not requiring much energy to make the intercept.

I satisfy myself that all my mobs know what they're supposed to be doing, then push myself away from the wreck with my own fusion torch. The mobcom bursts free of the tattered metal skin of the old wetship, spinning off into the black. I kill the spin with a motion as reflexive as scratching an itch, and jet toward the corvette.

1121 is a coldship, of course. No biosphere, no humans aboard. The actual working part of the vessel isn't much bigger than my mobcom, though it's packed full of a lot more compute power and weaponry since it doesn't have to carry all the support systems to haul around a bag of meat. The secondary and much larger part of the corvette is storage, where it keeps all the energy and raw materials it needs to top me off after a fight. I let the mobcom talk to it, working out the details of intercept and material transfer, and check the corvette's memory for new orders from command.

Sure enough, they've got another target for me. Not much of a hop, only six days transit. I run the numbers in my head. That'll put me at day one hundred two, which means they'll probably try to squeeze in yet another encounter before my hundred and twenty days of tour are up. It's a depressing thought. When I started as an operator, a tour longer than sixty days was considered a hardship post. Now they're doing studies to see if we can handle a hundred and eighty days in the black. Someone at command is running the equations, figuring out how much combat effectiveness we'd gain versus how many operators would ghost out. I have a nasty feeling I already know what they're going to come up with.

A few hours later, I'm all tanked up, with fresh spin-ups loaded and a disposable booster strapped to my rear. Drugs flood my system, working their weird magic, and the gel-seat reclines into a couch. The suit floods all my inner cavities with padding. Then the booster ignites, and acceleration rolls onto me like a crushing, familiar blanket.

I lose the next encounter. It's on a sixth-generation cruiser, big but still low-rez, and my opponent is a woman named Nina. She natters on over the clearwave, all about her partner back on the Minoan Ark and how well they get along. Personally, I think she's a bit of an idiot, but I leave the transmitter on. Company is company, however inane.

Maybe her casual front lulls me into a false sense of security. She pulls a beautiful trick, giving one of my scouts a look at her early on, with the seeds of a second-tier economy already planted. Then her perimeter firms up, and I can't get another picture. I figure I've got some time, and go for second-tier myself, only to find her swarming me with cheap, fast mobs. She must have switched paths right after I got my pictures, converting from tech to rush. I fight back, improvising frantically. I go down harder than Gar did, but in the end I go down.

I offer Nina more or less sincere congratulations as my mobcom blasts away, already wondering if I can steal her trick for myself. Without a booster, it's another three days before I make intercept with a corvette, 1703 this time. It reequips me and bangs the dings out of my mobcom while I download new orders. As expected, there's another assignment. I glance at the parameters and swear.

"Seventeen days transit! You fuckers." That would put me well over one hundred twenty days when I have to fight. Very much against regs. "Bastard vacuum-suckings whoredaughters."

But of course, command is several hours distant by laser, and there's no point in shouting at the corvette. Or, indeed, in arguing at all. That's the thing about being an operator. You can ghost, or you can do as you're told. And I'm not going ghost anytime soon.

My suit's ping pulls me from the drug-addled reverie in which I spend most of my acceleration time. Still five days to the target, the booster consuming itself as it slows me down to match velocities. Not much to do—not much I *can* do, given the Gs I'm pulling, stuffed full of gel like an overfull cargo pod—but the suit tells me another mobcom is coming into range on a tangent trajectory. They're hard to detect, by design, when they're not boosting, and so it only warns me a couple of minutes before my colleague comes into laser range.

I check the IDs, it's Annie. An old friend. We have a window of a few minutes before our diverging paths take us out of easy communication range.

"Annie!" I say, or rather subvocalize, my body pinioned as it is. The suit is smart enough to fill in the audio. "It's been ages. Have they got us on opposing schedules or something?"

"Heya, Myr." Annie's voice is real; she's in the zero-gravity coasting section of her flight. "Something like that. How's tricks?"

"Five and two this run. They've got me staying out past the end of my tour, but this should be the last one."

"I'm jetting off to a fresh start!" she says, with mock enthusiasm.

"You sound terribly thrilled."

"First days of a tour are always the worst. I spent the last week in bed with Micah and Jane, and now I'm back out in the black with nothing but my poor fingers to keep me company."

I chuckle. Annie is speaking metaphorically, of course. We can't use our fingers with the suits on, but—like the clearwaves—no operator goes out on her second tour without making a few surreptitious modifications. There's damn little else to do, blasting through the black with the weight of a mountain on your chest.

"You made it all the way back to the Ark, then?"

"Yeah," Annie says. "Took up half my leave with transit time, but it was worth it to see a bit of green. And for a week of nonstop sex, of course."

Annie can be worse than Gemmy. Still, she's stuck to her partners, which is more than most operators can say. Relationships are hard when you spend two-thirds of your time hopping from derelict to derelict, with only your mobs at your side.

The suit pings. Two minutes.

"So what's the gossip?" I ask.

"The usual. Long tours and lots of grumbling. You want the good news or the bad news?"

"Since when is there good news?"

Annie sighs. "Two more ghosts came back. Beatrice and Iffie."

I'm silent for precious seconds. "Shit."

"I know. I saw it coming, with Beatrice at least. You know what she's—what she was like."

"Yeah. Still."

I pictured a mobcom making an automated rendezvous with a wetship, hatches opening up to reveal . . . what? Either nothing—a cockpit that had been cracked up to the black—or else a limp body, still swathed in its suit. A ghost.

Everyone knew how to do it, if you couldn't take it anymore. It was easy enough to override the suit's safeguards, make it give you whatever cocktail of drugs you wanted. Or else to just pull off your helmet and open the hatch, and get a look at the stars first-hand. I always thought that was what I would do, if it came down to it. It seems more honest than dreaming my way out.

The mobcom can find its own way home, of course. Operators can be replaced, but nobody's making fusion bottles anymore.

"Well," I say, after a few more seconds have slipped away. "Is there good news?"

"Depends if you believe the rumors."

"Sounds juicy."

"Maybe." Annie seems dubious. "Apparently the high muckety-mucks at command are all in a tizzy. The science types are supposed to have come up with a new weapon. Some kind of tachyon wormhole something something, I don't really remember. They say it could end the war, blast the Minos out of the system once and for all."

I snort. "I've heard *that* before."

"Me too. But there were certainly a lot of uniforms running around."

"Well, I'm not going to start planning my retirement party just yet." The suit pings. Thirty seconds.

"Me either. You headed back to the Ark after your tour?"

"Probably not." There's nobody waiting for me. Easier to spend my fleeting free time on the closest wetship and not waste most of it in transit.

"Pity. It really is nice to see the plants and such. Micah and Jane would probably have you over for dinner."

"I'll think about it." Five seconds. "End of window. Catch you next time, Annie."

"Zap some Minos for me."

The connection cut. I would take a deep breath, if my lungs weren't full of gel.

End the war, she says. Like that hasn't been tried before. I remember at least a little bit from school. Dropping rocks on Minoa was supposed to end the war, but they just did the same to us. Each big battle was supposed to end the war, wrecking more

and more ships until there weren't enough left for more battles. Just us, operators in mobcoms blasting through the black, scrabbling in the rubble.

Thinking about it takes me down to a dark place, the kind of place that makes people ghost out. So I don't think about it. I turn on my suit's unofficial enhancements, feel a pleasant buzz, and drift back into fantasy. Lying between Annie and Gemmy, trading off kisses, fingers tangled in my hair and running hot across my skin. Trees around us, open sky above, a warm breeze and the smell of salt water.

It's just a fantasy. It can be as impossible as I want.

"Hello out there."

"Hello again." It's Gar.

"Fancy meeting you here."

We're on a big chunk of a sixth-generation cruiser, larger than our previous battlefield but still low-rez. There aren't many high-rez wrecks still out there, at least not where we can get at them, though periodically the unpredictable orbits of the debris-strewn inner system will spit one out in our direction. I load my usual profile into my spin-ups and try to work myself into a fighting frame of mind.

"I thought you would have been off shift by now," Gar says. "Unless I counted wrong."

"I ought to be. Command asked me to stretch myself a bit."

"Ouch. My sympathies."

"Yeah. Well. I'd appreciate it if you could make this as quick as the last time."

He laughs. "Double ouch. I mean, if *you* just want to roll over, I wouldn't object . . ."

Every operator has been tempted, at some point. It would certainly be a lot easier if we could just trade off, instead of fighting it out every time. But command won't have it, and it's common knowledge that our mobcoms spy on us, upload our out battle records into the big iron back on the Ark. A little unauthorized communication is one thing, but throw a fight and there'd be hell to pay.

My spin-ups report that there are more trace metals in the skin of the hulk than I'd anticipated, and sensors show a few exotica-trap batteries still active. I make the call to go for second tier, devoting half my resources to building a defensive perimeter while the rest go into putting together fancier factories and harvesters, bootstrapping my construction ability beyond the primitive tools I'd brought with me.

"Can I ask you something?" Gar says.

"Sure, unless it's tactical."

He chuckles. "Why'd you become an operator?"

I blink, taken aback. "I . . . you know, I'm not sure I remember? It seemed like a good idea at the time." It seems like a thousand years ago, though it's barely a dozen.

"I should ask you the same thing. You must have had more options than I did."

Most women—Circean women, anyway, I have no idea how the Minoans run things—serve somewhere out in the black. There are never enough crews for the wetships, vacuum mechanics, salvage experts, a thousand other specialties, all in dire demand. The men, by and large, stay on the Ark, taking care of the food and running the creches. A few serve on the wetships, where the accelerations are lower and there's room to move around.

Being an operator means being out at the sharp end. Only a few have the right profile to spend their lives locked inside a tiny mobcom. On the other hand, paradoxically, it's a lot safer to go into battle in a fusion-powered autonomous factory, surrounded by armor and failsafes, then it is to be a mechanic on a wetship, crawling over rusty metal with only a salvaged suit and a frayed safety line between you and the black. More operators ghost out than die in combat or by accident.

"Not really," Gar says. "No options at all, actually. My psych test said I had the profile for this. I was as surprised as anyone."



"Lucky you."

"It's not so bad. Though I guess that's my abnormal psychology talking." He sighs. "It's just strange, talking to the other operators. Back on the Ark it's all 'Remember Naviento!' and 'Death to Baby-Killers!' and everyone hates the Circeans. Out here . . ."

I smile in sympathy. We all go through this realization, sooner or later. "Out here it's just a job," I finish for him. "I know. That's the secret of the operators. Weird, isn't it?"

"I trained for years, but nobody told me *that*."

"I'm not sure they know, back on the Arks. Or if they can believe it." Command has always been excellent at ignoring inconvenient facts. "What about you? Do you hate Circeans?"

"Not particularly. I've never been very war-like. Until psych testing I wanted to be a creche-instructor."

My suit pings. Mobs incoming. Gar and I are playing out the oldest variation in the operators' book: rush versus tech. He went for a quick swarm, I'm building for a long game. If my perimeter holds him back long enough, my bigger, meaner mobs will crush him. If not, it'll be a short encounter after all.

Gar learns quick, I have to admit. His tactics have a subtlety he didn't display the last time we met, curving his mobs to probe my defenses from multiple angles. I hold chokepoints in the corridors with laserbugs, little turrets that burrow into the fabric of the walls to protect themselves. He swarms them with roaches, bright flashing beams carving his mobs apart until they close to use their integrators. I fall back to a second line, leaving behind exotica bombs that vaporize the leading edge of his forces.

His equipment still isn't up to snuff. The Mark IV's limited compute power can only push the swarms in a straight line, not deploy them in writhing formations to maximize sensor confusion. We've passed the point of no return, and I'm not sure he even knows it. My tier-two factories are online, hulking, efficient matrices that crank out larger mobs.

I assemble a squad of Stalker Vs, big caniform brutes with power claws and reactive armor. They bound out on magnetic pads, loping through the ongoing skirmish, scattering the roaches. When the smaller mobs try to grab on, the Stalkers' armor pulses hot and spiky, and ruined roaches fall away.

"Oh, shit," Gar says, laughing. "That can't be good."

The Stalkers fight their way to his mobcom, tearing apart whatever he throws in their way. When they reach him, one of them staggers under the impact of the mobcom's lasers, but doesn't fall. The others tear into his spinups, wrecking his ability to produce mobs, and circle around the mobcom itself.

"Done?"

"Done," he says. "One more question, before I go?"

I give an exaggerated sigh. "If you must."

"Have you ever killed anybody?"

I pause again. I'm not sure I want to answer the question.

We're supposed to, of course. More accurately, we're supposed to take every opportunity to destroy irreplaceable enemy mobcoms. The death of the operator is a strictly secondary concern. But precisely because the mobcoms are so valuable, chances to destroy them don't come along very often. If I unleashed the Stalkers on the Mark IV, they could certainly take it to pieces eventually, but it takes only a flick of a torch to blast away from a wreck at a speed no mob could hope to match.

"Not recently," I say. "You need a high-rez battlefield to even give you a shot at it."

"But you have?" he says.

"Twice." It's something I think about to this day, when I'm out in the black, for all that it was my patriotic duty.

Gar is quiet for a while. Then he says, "Okay. Thanks."

His torch ignites, and I'm alone on the wreck with my mobs. I wonder what he wanted. We all get a little philosophical sometimes, it's one of the hazards of the profession, but too much of it puts you at risk of ghosting out.

I find myself hoping that's not where Gar is heading. It'd be nice to get the chance to talk to him again.

When I make the rendezvous with the corvette, it informs me that my tour is over—at last—and asks if I want to take my leave on the Ark (current transit time, thirty-five days) or on the nearest wetship, a little more than two days away. I opt for the latter, and it makes me a small booster, just enough to make the intercept with the cruiser.

Like all wetships, it's enormous, a fat-bellied behemoth of scarred metal and ceramic that dwarfs my spidery little mobcom. Even the corvette would look like a minnow beside it. Once my booster uses itself up and ejects, the cruiser takes me in its grip, pulling me gently but firmly into its maw with invisible lines of force. It's hard to escape the sensation of being eaten alive.

Getting out of the mobcom, on the other hand, is a little bit like being born. First the suit has to retract all the wriggly adaptors it has plugged into every orifice; it's surprisingly easy to forget that they're there, out in the black, and the sudden reminder is disconcerting. Next I get out of my gel-seat, moving my legs for the first time in a hundred and twenty days. Drugs and artificial stimulation keep the medical effects of prolonged immobility at bay, but it still feels like rediscovering a limb I didn't know I had. Then the main hatch opens, and I pull off my helmet and take an actual, oxygenated breath.

Procedures for dealing with returning operators are clear. There is no one waiting for me, just an empty room with a storage locker. It smells like mold and failing air recyclers, but the very fact of smell is another revelation. The suit pulls away from my skin with the wet sucking sound of breaking seals, and I leave it in a rubbery pile on the floor. A band of black, skin-tight stuff remains, tight around my wrist; that's the pharmacopeia, which will keep supplying the drugs I can no longer live without.

One corner of the room is equipped with a shower head and a drain, and I stumble underneath it and turn the water on full blast. The screaming, stinging sensation on my skin makes me want to curl into a ball, but I force myself to stay upright, tears filling my eyes. They have to fall the normal way, instead of being wicked aside by hair-thin suit fibers.

After a long, long time, I turn the water off and open the storage locker. I dry myself with the fluffy towel inside, then remove the uniform they've fabricated for me. It's just in my size, of course, but it takes me a while to remember how clothes are supposed to work. The thing has *buttons*. Honestly.

Once I've got it sorted out to my satisfaction, I open the outer door and step into the cruiser's hold. It's full of all kinds of junk, broken machines, wrecked equipment, a few other freshly fabricated structures. Two officers, a man and a woman, are waiting for me, wearing the same black-and-gold uniform as I am. They bring their hands up in salute, and long-dulled training makes me return it. I can't stop staring at them—the little folds of their skin, the flickers of their eyes, the slight movements of their faces. I remember vaguely that this is rude, but I can't bring myself to care.

"Welcome back, Lieutenant Commander Miranda," the man says. "I hope you had a successful trip."

I should say something, shouldn't I? The physicality of the conversation, without the intervention of suit and clearwave, is distracting. "Thank you." That's usually safe.

Nothing happens for a while. That may have been the wrong thing to say after all. Then the man coughs.

"Lieutenant Goshawk will take you to your quarters."

"Follow me, sir," the woman says. I trail behind her, moving like a recently reanimated corpse.

I rate a room with a bed and a table, my own toilet, and a companion. Mine is a boy named Varn, wearing a private's uniform and an expression of unshakable determination. He bustles around me, offering me food and water like he was a personal servant, but we both know what he's there for and before long I'm eager to get down to business.

I wonder if there's a creche-school back on the Ark where they train these boys, or if it's just part of the standard military program. It seems like it would be a lesson worth sitting in on. I can't help but imagine a grizzled drill-sergeant coaching his pupils in the finer points. However he was instructed, Varn clearly was near the top of his class, and he leaves me sweaty and aching pleasantly. When we're finished, he dresses quietly and slips out. He'll be at my disposal for the duration of my stay; rank hath its privileges, I suppose.

Later, I sleep. I must sleep while I'm out on tour, but it happens during the drugged reveries of transit, so I'm never aware of drifting off or waking up. If I dream, I don't remember afterward.

This time, though, I dream. I blame Gar.

I remember my first kill-shot, almost an accident, back on my second tour. I was still half-green, and up against a veteran named Lily, but she'd arrived at the wreck nearly five minutes after me, and she was struggling to overcome the handicap. That's unusual. The big iron on the Ark plays the great chess game of dispatching mobcoms against its Minoan counterpart, and since all the pieces are public—hard to hide it when a fusion drive lights up—encounters are usually evenly matched or they're not fought at all. Lily probably should have cut her losses and run, but she told me she was on a bad streak and didn't want another failure on her record. She waited too long. I latched a crawler pregnant with exotica on to the underside of her mob, set it off, and the blast cracked her fusion bottle. Nothing left but vapor.

I never dream about the second time. There are places even my subconscious doesn't want to go.

Over the next few days, I wander the cruiser, exploring. Like all wetships, it's an ancient amalgamation of designs and repairs, full of unpredictable passages and detours. Everything has been fixed or replaced a hundred times over, and nothing works quite the way it should. Most of its bulk is devoted to the maintenance of a livable biosphere for the thirty or so crew members, who spend almost all of their time tending the machinery that keeps them alive and breathing. That's the problem with canned spam in the black—it takes so much effort to keep us going there's no time left for anything else.

As I shake myself out of my daze, I become ravenous for human contact. That's half the reason companions are provided—otherwise operators would be forever dragging crew members into dark alleys when they have duties to attend to. I alternate between fucking to exhaustion and grilling him about what's been going on back on the Ark, less because I want the news and more for the simple pleasure of conversation. Much of what he has to say is banal, but he repeats what Annie told me, about command's obsession with some kind of new toy.

On the tenth day of my leave, another mobcom arrives. I can hardly contain myself when I see that it's Gemmy, and I'm already making plans for the two of us to seriously test the limits of poor Varn's stamina. She docks, but she doesn't open her mobcom, and for a minute a sudden fear grips me. Maybe Gemmy's not in there at all. Maybe it's just a ghost.

Fortunately, it's not long before I get a call on my room's data system—so strange to have to go to particular place to interface with it, instead of having it all around you—and hear her familiar, cheery voice.

"Myr! Is that seriously you up there?"

"Are you hiding from me?" I tell her, teasing. "Scared to come out?"

"Please. You have no idea how much I would like to wriggle out of this thing."

"What's stopping you?"

She sighs. "Orders. I got a packet from my corvette. You're not going to like them."

"I'm not going to like them?" A sudden, awful feeling wells up from my stomach. "What do your orders have to do with me?"

But the orders are already scrolling across my screen.

*On arrival at cruiser 17, do not disembark. Another operator will be on leave there. Transmit these orders at once . . .*

I blink back sudden tears, catching only snatches of the rest.

*. . . proceed immediately together . . .*

*. . . utmost importance . . .*

"Yeah," Gemmy says. "Sorry it was you, Myr."

I'm surprised at the strength of my reaction. It's not so much the thought of getting back into the mobcom—I was going to do that again, sooner or later—as it is the sense of betrayal. Command has pulled some awful shit on me before, but nothing like this. So there'll be no delightful tumble with Gemmy, no more time to relax and enjoy Varn's attentions, nothing but a hustle to get back out in the black.

I could refuse. For once, I have the option. I'm not in my mobcom, with its secret recorders and remote overrides. If I lock the door to my room, what can they really do? Break it down and arrest me? So what?

They can shoot me in the head and feed me to the recycler, is what they can do. I know that, obviously. Refusing a direct order is treason. But the impulse still remains.

"It's not all bad," Gemmy says. "Take a look at the bottom."

I glance down.

*Upon the successful completion of this mission, you and the other operator will be eligible for an extended leave of not less than three hundred sixty (360) days.*

"Shit." The thought leaves me a little breathless. To have three tours' worth of leave—I could go back to Ark, walk in the gardens, spend some of the ration allocations that pile up uselessly in my account. "They aren't kidding, are they?"

"Nope," Gemmy says. "So I'm also glad it was you waiting for me. You're the best operator I know, and we have *got* to win this one."

Back into the mobcom, back into the tiny universe of suit and control board, systems flickering to life and running through their bootstrap sequences. Getting in isn't nearly as bad as getting out. The suit is polite enough to grow its interfaces slowly. I settle back in the gel-seat and snap my helmet in place. The suit overrides my autonomic reflexes, and I stop breathing, tiny fibers snaking through my skin to oxygenate my blood directly.

The cruiser has already built me a booster, a terrifyingly large one. I can see Gemmy's mobcom, similarly equipped, and I bring up the laser link.

"Ready?" she says.

"Just about."

The cruiser pushes us free. As soon as we reach safe distance, the boosters' programming takes over. Once again, I'm packed full of acceleration gel. Fibers snake around my eyes, tweaking the vitreous humors so they don't pop like grapes.

The torches ignite.

"Wheel!" Gemmy says, her voice computer-generated now.  
Transit time, thirty-six days.

I spend some of my more lucid moments reviewing information about the target. It's a big one, a third-generation battleship. The *General Randolph*, from back when ships had names. Until recently, it was locked in a complicated, eccentric orbit in the ruins of the inner system, but a recent close pass by still-molten Minoa slingshot it out in our direction. According to preliminary scans, it's almost ridiculously rich in resources—high grade metals, bottled exotica, even a ton of ancient tech, still intact. The ultimate high-rez environment. I marvel at the profligacy of the early days of the war, when such a wreck would simply be left to spin in the black.

The mission profile is odd, too. Normally I skip that part of my orders, because it's always the same. Suppress any enemy presence, construct anti-ship defenses and thrusters, wait for contact. This time, though, we're to concentrate on securing a particular sector of the ship, without damaging it more than necessary, and then deliver a particular payload. Some kind of sensor and comm relay, as best I can tell, from the very old days. We're to hold that sector at all costs, even if it means giving up an advantage in the fight overall.

"Weird," I tell Gemmy.

"Very weird," she agrees. "But this whole thing is weird. You ever done a tandem before?"

"No. We talked about it a little in training, but we're spread so thin these days."

"Me either. Think there'll be two of them?"

"Have to be." Command wouldn't send us in to a mismatch, I hope. The same goes for the Minoans. "Who are you hoping for?"

"Someone new and incompetent," Gemmy says, with a computer-mediated laugh. "Normally I'm up for a good fight, but with three tours of leave at stake, I just want to get this over and done with."

"Likewise." I wonder if Gar will be there.

The second time I made a kill-shot, the time I had a choice, is the one I try hard not to think about. This time I was the veteran, on my sixth tour, and my opponent was a girl just out of her training. Her first encounter, still uncomfortable in the second skin of the suit and mobcom. Someone had given her a clearwave, though, and she introduced herself, hesitantly, as Emily.

I was near the end of my tour. Tired, eager to be home. We were on a medium-rez cruiser, with enough exotica lying around to build some really dangerous weapons. I was pushing her back, corridors filling with blasted mobs and bolts of coherent energy, but it was taking forever. I built a Diamond II, a crystalline mob with an exotica core and focusing lenses to generate a laser from the energy flood. A suicidal charge by a squad of my other mobs carried the thing deep into her defenses, within sensor range of her mobcom.

I had originally intended to use it on her factories, blast her economy to ruins, but I couldn't get near enough to detect them through the jammers she'd set up. Her mobcom stood out, though, fusion bottle humming. The Diamond was stuck in the center of a disintegrating pack of mobs, seconds from getting blasted, and I had a choice.

She should have put up more shielding. An amateur mistake, but easy to make, if all you're used to is low-rez battles with roaches.

I took the shot. The exotica blast destroyed the struggling mobs around it, and pumped its laser far past the range my mobcom could have managed. The beam slashed through the decks and walls like they were made of mist, hit Emily's old Mark III, and punched right through.

It was supposed to end quickly, in a bright flash of fusion. But the Mark III had enough time to eject its bottle, which detonated outside the wreck, and I could hear Emily screaming. The laser had slashed her nearly in half, blood and gore bubbling and freezing as the vacuum rushed into her shattered mobcom and through her ruined suit. It was several seconds before the clearwave cut out, but it didn't seem to matter. I could still hear her shriek of pain and terror ringing in my ears.

Command gave me a commendation, and an extra thirty days' leave.

We finish our deceleration burn, using up the last of the boosters, and make impact with the *General Randolph*. I try to put us as close to the objective sector as I can, but the ancient ship is tumbling, and it's hard to match up my old maps to its scarred and pitted hull. Gemmy and I end up boring into the maze of room and corridors separated by several hundred meters, and a considerable distance from the sector we've been instructed to take.

There isn't time to relocate, either. Two more mobcoms hit the wreck only seconds after we do; as usual, Minoan command is as astute as ours. I eject my spin-ups, which immediately begin to report the rich concentrations of trace minerals and accessible exotica. Punching up the high-rez build profile gives me an unexpected feeling of nostalgia. It's been a decade since I got to fight in a wreck so replete with material, and watching the plans for high-end mobs slide across my vision sends me back to my days as a recruit, barely out of training.

I shake my head and concentrate on the task at hand. Gemmy and I had talked strategy while in transit. It's the first time either of us has ever had an objective other than flat-out victory, and we agreed it means at least one of us should take a more defensive approach. Given Gemmy's tendency to go straight for the throat, that means me. After my usual burst of scouts—ready in a few seconds, given all the material at my disposal—I start pushing hard for tier-two, plowing every gram of resource I can extract in building bigger, faster harvesters and factories. In theory, pure tech will give you an exponentially increasing power curve, as long as the resources hold out.

And as long as your enemies let you do it. Gemmy sticks to quick and cheap mobs, blasting out swarms of roaches, froggies, and the low-end spinners and spiders. Her horde bounces and scuttles through the derelict's corridors, cutting through doors where ancient failsafes tried to contain the hull breach that ultimately killed the *General Randolph*. They secure the target sector early and push on, toward where the two Minoan mobcoms made entry.

I thumb the clearwave, out of habit. "Hello?"

"Hello, hello, hello!" Gemmy croons, already in the frantically excited state that battle brings out in her. "Anybody out there?"

"I'm here." It's Gar, again. I wonder if command is sending me against him deliberately, because I keep winning. "My colleague is Vivian. This is her first tour, and she hasn't got herself a clearwave yet."

"Aw," Gemmy says. "Poor little girl."

"Hey, Gar," I say.

"Hi, Myr. What are you doing back out so soon?"

"Orders." I heave a sigh, which Gemmy and Gar immediately echo.

"At least we'll get to have some fun for once," Gemmy says. "Plenty to work with. Keep your heads down, kids!"

Not bad advice. The chance of someone getting killed is much higher in a high-rez environment, where the mobs can get large and dangerous quickly. My suit feeds me digests from Gemmy's network, showing her mobs engaging the enemy. Vivian seems to be handling the initial defense, which means Gar is probably following my fast-tech strategy.



They don't seem to be making any special push for the comm station, the critical sector from our orders. I wonder if the Minoans know about whatever's so special, or if they're just here after a rich prize. That leaves me a tactical choice—pretend that sector isn't important, and hope they ignore it, or plant my main defense there?

I decide to rely on brute force instead of misdirection. My tier-twos are online, and I build myself an armada of rolling harvesters and constructor mobs. Then it's time for a very rare maneuver, physically relocating myself. In an ordinary mission, there's rarely a reason to move the mobcom around—it's deadly slow compared to the mobs, and one place is usually as good as another to set up defenses. Today, though, if I'm going to be building my bastion around this comm station, I damn well want to be inside it when we start throwing high-end mobs around.

It takes a few minutes for my mobcom to get there, clanking ponderously on its spider-like legs and burning through hull material with its lasers when it can't fit. The mobs beat me there, and I plant them in a rough semi-circle, facing Gar and Vivian and outside the sector we were instructed not to damage. The harvesters get to work, looting the hull material for metal and exotica, and I direct the constructors to start putting together tier-three factories. The exponential curve ticks up another notch.

In the comm station itself, I send a roach to upload the package command gave us, a dense wad of ancient byte-code. To my astonishment, the archaic machinery hums to life. The comm station still *works*, near-miraculously preserved and powered by a huge exotica battery that must be one of the ship's primary reserves. Suddenly my orders make a lot more sense—we're not just here to salvage an old machine, but to *do* something. Possibilities start to run through my mind, but I ruthlessly shunt them away. Whatever it is, it's not my problem.

My problem is the Minoans, whose swarms are getting nastier by the minute. Their early mobs have been joined by larger tier-two models, armed with lasers and plasma cutters instead of paltry, short-ranged integrators. Gemmy is falling back, frantically upgrading her own plant and picking off her larger opponents by sheer weight of numbers, but it's time I joined the fight. My own tier-two factories are still waiting where I came in, and I set them to crank out a continuous stream of heavy mobs and report to Gemmy. She takes command of a squad of Stalker Vs and sends me a squeal of gratitude, and moments later battle is joined in earnest in the dead corridors of the ancient battleship. Big mobs tear one another to pieces, vaporize one another with lasers, and explode in bursts of released exotica.

The comms machinery is doing *something*, humming away to itself as it executes command's program. My attention is on the defensive line I'm building. I reforge the metal of *General Randolph's* corridor walls into diamond-hard composites, stretch them into barricades bristling with laser turrets. In front of them my constructors lay traps, exotica bombs and clusters of tiny integrators that can reduce a big mob to gray goo. Behind, waiting in front of the comm station, is my reserve of tier-three mobs. They're Behemoth IIs, huge things nearly the size of my mobcom, with force shields and multiple adaptive weapon systems. When they move, my suit feeds me echoing *clanks* as the walls vibrate.

"Yee-haw!" Gemmy shouts, launching a frantic assault aimed right at Vivian's mobcom. It's not a tactically sound maneuver, but it catches the Minoans off guard, and for a few minutes all their resources are devoted to encircling and destroying her assault force. In the meantime, Gemmy pulls back, shifting her mobcom so my new barriers will be between her and the enemy. Her new factories are ready, and she starts putting together flying squads of Stalkers and sending them on wide hooks, skirting the main battlefield.

"I like the Behemoths," she says to me, on a private channel. "You've got your tier-three up and running?"

"Full blast. I'm still building out factories." This is beyond even high-rez—my harvesters are sucking in raw material at a furious rate, but the *General Randolph* is a treasure store that I could only dream about in an ordinary encounter.

"There's a trick I want you to try. Build yourself a squad of Diamonds and toss them out through a hole in the outer hull, see if we can get around behind them. The beams are powerful enough to cut in and do some damage."

I blink. It's a good idea. But . . .

"I'm on it." I shake my head again. Not the time for second thoughts.

Gar and Vivian's horde, reinforced and reorganized, goes on the offensive again. They run into my defensive line and the front ranks just evaporate, blasted to vapor by traps and turrets. My fire tears the complicated grid of corridors to shreds, leaving a zone of free-floating debris.

"Ouch," Gar says. "That was like sticking my hand on a stove."

"Is that the best you've got?" I grin inside my helmet.

"Not hardly."

"Bring it on." He yelps. "Shit! You sneaky little—"

"Ha!" Gemmy crows.

One of her Stalker squads got close enough to do some damage to Gar's factories, and he diverts mobs to counter-attack. It's not a devastating blow, not here, with rebuilding so easy, but it slows him down. The comm station whirrs and clicks behind me, sending out waves of unguessable purpose that barely register on my mobcom's sensors. I build a squad of Diamonds, one-shot laser-bombs of immense power, and send them on a complex path that will take them out through a rent in the hull.

Gemmy, safely relocated behind my perimeter, settles down to build a steady stream of mid-range mobs to supplement our forces. Vivian launches another attack on my line, with the same lack of success. When Gar throws a new wave of small mobs against me, I start to guess that they're covering up for some other scheme. Not much I can do, with so many of my resources committed to defense, but Gemmy takes the initiative again, sending a flying wedge of fast-moving spider-mobs deep into enemy territory. Once again, they fight their way in close to Gar's mobcom before his defenses annihilate them.

"Look!" Gemmy crows, shooting me images. "Only one diffuser!"

My suit helpfully highlights known enemy mobs and installations, and I can see she's right. Gar has built a diffuser—a mob that projects a defensive field that spreads out the energy from beam weapons—but only one. Gemmy's brief attack has left the turtle-shaped thing glowing a faint blue-green.

"Five Diamonds ought to be able to punch right through it," Gemmy says. "You can take him out!"

"Risky," I say. My stomach flipflops. "If he's got another one hidden, it'll all be for nothing."

"We're accomplishing our mission just by sitting here," Gemmy says. The comm machinery seems to have finished its task, or else is waiting in readiness for a response. I have no idea how long we were supposed to hold it for. "If we're going to actually win this fight, we need to take a few risks."

I close my eyes. My Diamonds, flying free in the black outside the *General Randolph's* hull, have maneuvered to a position where they have the closest shot at Gar's mobcom. He's still fairly close to the surface of the wreck, with only a few metal decks between him and the outside. Gemmy's right, damn her, damn Gar for not keeping his defenses up, damn *me* for even thinking twice about it.

"I'll try." I twitch my hands, entering the firing coordinates.

Gemmy sends her mobs out, to occupy the Minoan's attention, and the dead corridors of the hulk once again erupt with laser fire and detonations. The Diamonds ma-

neuver a bit into better positions. I thumb the clearwave on, thinking I ought to say something, but click it off again without speaking when I can't think of what.

The first Diamond fires, releasing its exotica and blossoming into a brilliant sphere of energy. Tiny components, in the millionth of a second before they're consumed by the explosion, focus that power into a coherent beam and direct it down into the ancient battleship. The laser cuts the decking into vapor and hits the hemispherical field projected by the diffuser, splashing into a curling, blue-green mist. The diffuser's glow doubles, then doubles again as two more Diamonds fire, the combined energy of their beams coursing through its overworked circuits. The fourth one burns it out entirely, in an explosion that sends fragments pinging off Gar's mobcom.

Then the fifth Diamond goes off, its beam sweeping a narrow arc in the fraction of a second of its existence, slashing a path of destruction through Gar's exposed factories and harvesters in a wide semi-circle and missing his mobcom by meters.

There's a long moment of silence. Then—

"Shit," says Gar. "*Shit.*"

"Myr?" Gemmy says. "What the hell happened?"

"He's crippled," I say. My Behemoths lurch into motion. "Hit him now!"

She sends her mobs forward, too, but I'm not sure it'll be enough. Normally, blasting an enemy's factories to bits is enough to win an encounter, but with all the resources he's got in easy reach Gar will be able to bootstrap himself back up again in no time, especially with Vivian to help. And with so much of my force locked into a static defense, I'm not sure Gemmy and I can overwhelm him.

Still, no regrets. I had a choice, and this time I made the right one.

"Myr?" Gar says, as the Behemoths join the battle.

I wonder if he knows what I did. I don't want to talk about it, not with Gemmy on the line. "What?"

"I'm really sorry about this."

I have only an instant to grasp what happens next. A tunneler mob, digging through solid metal, slipping between decks and insinuating itself past all my barriers. Not enough payload for more than a nuisance attack, except that my mobcom is sitting in the comm station, and under that comm station is one of the biggest exotica stores on the whole derelict ship. The tunneler must have attached itself ages ago, working with its integrator to turn the battery into an enormous bomb. Now my sensors pick up the swelling energy, far too late to do anything about it.

Still, no regrets.

The world goes white.

I open my eyes. I must not be dead after all.

My suit confirms this. There's no link to the mobcom, no network or even clearwave connection, but it flashes diagnostics for my stupid, fragile meat-body. One leg broken, soft tissues all over damaged by shockwave. Nothing it can't fix, given time, and it's already made a good start. I've been unconscious for nearly five hours.

I'm floating free, an odd sensation. All our encounters take place in null gravity, of course, but I'm usually strapped securely into my gel-seat. Now I'm in a small, dark space, lit only by dozens of flickering indicator lights. By their faint glow, I can make out a control console, a seat, and a suited figure. I'm inside a mobcom, but not a familiar one. Someone has plugged my suit into a power line—it can keep me alive indefinitely on its own, as far as food and water and medicine goes, but it needs external power to do it.

I wonder if I'm a prisoner. I've never heard of an operator being captured before.

The suited figure, seeing my movement, beckons me over. I pull myself toward the console, and there's a comm cable waiting. My suit isn't designed to interface with

Minoan equipment, but the other operator has been making some basic modifications, and it fits the jack on my gauntlet.

"It's me," Gar says. "Are you all right?"

"I'll live," I say. "What happened?"

"Your mobcom was cracked wide open, but it managed to eject its bottle before it went up. I had some mobs take a look, and when they saw your suit was intact, I brought you back here." There's something tight and unpleasant in his voice.

"Lucky me." I mean that. The mobcom has all the armor—the suit isn't designed to do much without it. The difference between a blow that would break the mobcom open and one that would break it open *and* turn me into paste is only a hair's breadth. "Did you pull your punch?"

"What?" He shakes his helmeted head. "Oh, no. I wish I . . ." He pauses. "Listen. There's something you need to see. We got a broadcast an hour ago."

Video flashes into my vision. I recognize the jagged lines of the Minoan Ark from a hundred propaganda videos, the sinister face of the enemy, as seen from an escorting cruiser. Then a tiny spark of light blossoms in the center of the screen, rapidly expanding into a roaring ball of energy that must be hundreds of kilometers across. The huge, ancient ship shatters into a thousand spinning pieces, fragments blasted free just ahead of the all-consuming sphere of light.

I blink, trying to understand what I'm looking at. The Minoan Ark. The last bastion of their civilization. Where they keep their factories, their food supplies, their command. Their children and their creche-schools.

The end of the war.

"I . . ." Tears are welling in my eyes, wicked away by my faithful suit. "I don't . . ."

"That's not all," Gar says. "Here."

Another video. This time, it's home. The smooth curves of the Circean Ark, as friendly and familiar as the inside of my mobcom. The tiny world on which I was raised, with my creche-brothers and sisters, where I hoped to go walk in the gardens if I could ever get enough leave.

The same tiny spark of light, the same expanding sphere. I close my eyes before I can see the end.

"They were developing a new weapon," I say, dully. "Something . . . complicated. A wormhole tachyon something something, Annie said."

"Apparently, the comm station here on the *General Randolph* painted a target on the Ark," Gar said. "A few minutes later, that thing went off. As best we can tell, the same effect happened on your side, at the same time."

"They lost control." I want to cry, laugh, and curl into a tiny ball of guilt all at once. "Those stupid, stupid bastards. They built a new toy and they let it get out of control."

"That's what my side thinks, anyway." He shakes his head again. "Either way, it hardly matters what happened now."

Nothing matters now. The war is over. No one left to fight.

There's a long interval of silence. I can hear Gar's ragged breathing over the open channel. I wonder if he's been crying.

"What happened to Gemmy?" I say at last.

"She pulled out after the explosion. I don't blame her, you ought to have been dead. When these images came through, I sent her a message telling her I'd picked you up. Last I saw, she'd turned her torch around and headed back this way."

"Why? What are we going to do now?" What was there *to* do, except ghost ourselves and be done with it? My suit could still manage that much.

"Vivian is off building out our anti-ship weaponry. We've got plenty of energy here." He sounds almost shy. "When we're ready, I'm going to broadcast an invitation to both sides. Everyone who's left."

That might amount to a few dozen mobcoms, a few cruisers, some corvettes. "To do what?"

"To build a new Ark."

"Here? Both sides?"

He nods.

"Do you think they'll listen?"

"The operators will," Gar said. "You told me the secret. It's just a job for us, and now the job is over. Time to move on."

"The officers on the cruisers might object."

"Have you ever thought about what a mobcom could do to a cruiser, if you decided to take it apart?"

I'd never even considered it, but the answer was obvious. Cruisers were fat, fragile wetships, and their tiny crews would be no match for a gang of mobs.

"You really think it will work?" I say.

"It might. We'll have the mobcoms' fusion bottles, all the resources of the *General Randolph*. We can take the cruisers apart, if necessary. Go and fetch more wrecks. Figure something out." I can tell, somehow, that he's smiling. "It beats the alternative."

"Yeah," I say after a minute. "I suppose it does."

Another silence.

"I saw what you did," Gar says. "With the Diamonds. I wanted to say . . . thank you. For not taking the kill-shot."

"I thought about it," I say. "But—"

"And I really am sorry for taking mine."

"Don't worry." I shake my head. "I won't take it personally. It's only a job." ○

## ***Tourists from the Future***

*"If time travel is possible, where are the tourists from the future?"*

—Stephen Hawking, *A Brief History of Time*

Their incursions into our  
world are invisible to us.

They have come and gone,  
leaving no trace of their passage,

for each time they change our world  
they change our memories in kind,

just as they change our lives.  
We are novels or film scripts

in inconstant vision and revision  
as each act or chapter transpires,

thinking each stray moment  
as real as our mercurial past.

—Bruce Boston



# THE LADIES' AQUATIC GARDENING SOCIETY

Henry Lien

Henry Lien <[www.henrylien.com](http://www.henrylien.com)> is a speculative fiction writer from Taiwan, now living in Hollywood, California. He attended Clarion West in 2012, where he workshopped this novelette with Connie Willis. Since then, he has sold stories to *Asimov's*, *Analog*, *F&SF*, *Lady Churchill's Rosebud Wristlet*, and *Interfictions*. Henry's first publication in *Asimov's*, "Pearl Rehabilitative Colony for Ungrateful Daughters" (December 2013), was nominated for a Nebula. His latest novelette was inspired by knowledge accumulated during his day job as an art dealer. "Many of the great collections of art now enjoyed by the public were funded with fortunes in industries that had devastating environmental and social impacts." In addition, Henry tells us, he just loves watching rich people behave badly.

## Chapter 1

*Mrs. Howland-Thorpe vs. Mrs. Fleming, Battle One*

In which Mrs. Howland-Thorpe loses her seating  
at supper four seats from Mrs. Vanderbilt and blames that Italiane  
creature, Mrs. Fleming.  
*Mrs. Fleming Prevails.*

**G**ood sense advises that it is not prudent to make war against the garden of a lady of breeding and society with words, moles and voles, or combustibles, for she shall grow cross and vengeful.



Mrs. Honoria Orrington Howland-Thorpe came of family of no particular distinction. The Orringtons had once begun to build some beginning toward a fortune in whaling. But that was gone long ago, after the carcass of one specimen was left too long unbutchered on the dock and the foetid gases growing in its belly as it decayed caused it to explode all over the street, resulting in a series of lawsuits that were small in value but legion in number and unending in appearance. This eventually reduced the Orrington business and family name to nothing worth noting. They were now far from among the first families in Boston. They saw in Honoria, possessed of an unearthly beauty and famed for her complexion, the last great hope of their line and did all in their power to send her to Farmington for the finishing of her education, though it caused them to have to repair to a house in the Fens to pay for it. Honoria made good return on the investment and married Tiberius Howland-Thorpe, as much for his railway fortune as for his relations, and thought well of the placement, although looking at his features produced in her a state of mild but constant irritation that continued without cease for the next fifty years. Together, they managed to keep themselves on the invitation list to sup at Marble House with Mrs. Alva Vanderbilt and her husband each summer at Newport.

Mrs. Cecilia Contarini Fleming was a great beauty of foreign extraction. She was the last of a noble Italian family that could trace its lineage back to ancient Etruscan lines, but whose prospects had grown more modest with each successive generation. She married Patrick Fleming, an industrialist of humble origins who made his fortune importing combustibles from the Orient and selling them to interests who employed them in the laying of railways and the hollowing of mines. Mrs. Fleming had been among the first women to study at Newnham College at Cambridge and had followed her education not with the customary Grand Tour Abroad—for, being an *Italienne*, she was from abroad—but with several years in Japan studying lacquerie, gardening, and poetry, and then a brief tour traveling with missionaries in Africa. She could dance, sew, sing, play the pianoforte, draw, paint, compose poetry, compose music, ride, fence, perform archery, and read and speak Greek, Latin, Italian, French, English, and Japonais.

Before Mrs. Fleming arrived in Newport, Mrs. Howland-Thorpe had been famed for the grandeur of her rose gardens, which all Newport society had declared among the most original of the age, for they, when viewed from a height atop the viewing pedestals, reproduced the tableaux of famed paintings by the Flemish masters. Mrs. Howland-Thorpe's garden had for several seasons been gilded with the honor of being the first that Mrs. Alva Vanderbilt visited during each summer's garden tour among the great houses of Newport. Mrs. Vanderbilt could hardly have bestowed her attention upon a more grateful object, and the distinction turned Mrs. Howland-Thorpe a peculiar mixture of haughtiness and sycophancy.

Alas, all of that changed when Mrs. Fleming and her husband purchased the great chateau next to the Howland-Thorpes' home and Mrs. Fleming took it upon herself to plant a garden of her own.

Mrs. Fleming's new garden was of no style that Newport society had ever seen. It was neither French nor was it English. It was composed of neither grand geometric promenades à la Française nor meandering paths laid for lonely contemplation in the English style. It was, to the contrary, a style of Mrs. Fleming's own devising, mixing the green upon green and the water stairs of Italianate gardens with the shocking spareness and otherlandish asymmetries of the Oriental aesthetic. It used only plants that were native to the region of Newport, for Mrs. Fleming was a voluble promoter of creating gardens in harmony with their natural environs.

It was the first garden that Mrs. Alva Vanderbilt chose to visit during this season's garden tour.

The first evening of the summer season was of course Mrs. Vanderbilt's. The party was all delighted agitation to find that the dining table at Marble House was set with orchids, ferns, and hollyhocks, and that live hummingbirds, cleverly cemented to slender reeds, buzzed unmoving in mid-air amid the flowers. Mrs. Howland-Thorpe, however, found herself unable to embrace the jollity of the evening with the whole of her enthusiasm, for she discovered that Mrs. Vanderbilt had not seated her four seats from herself, as had been the convention in past seasons. To the contrary, Mrs. Howland-Thorpe and her husband were now seated eight and nine seats down from the center of the table where Mrs. Vanderbilt was seated. She felt the offense even more grievously when she saw that Mrs. Fleming was seated but four seats from Mrs. Vanderbilt.

How shocking that that Italiane creature with her Irish merchant husband should become the pet of Mrs. Alva Vanderbilt, thought Mrs. Howland-Thorpe to herself at supper nearly halfway to the end of the table from Mrs. Vanderbilt. The whole table seemed beguiled by that foreigner's reports of her travels in Africa. Who cares to hear of jungle savages and their language, thought Mrs. Howland-Thorpe. It is all very charming and sweet that they made up a language all by themselves, but it is hardly a subject for table conversation in refined company. And who cares to hear of teaching them to plant crops? They could continue eating zebras and each other and missionaries, for all Mrs. Howland-Thorpe cared. If this was what Newport society had stooped to, to vulgar worship of freakish novelty, then she would quit Newport society! Yet she kept her thoughts to herself and finished her filet instead.

## Chapter II

### *Mrs. Howland-Thorpe vs. Mrs. Fleming, Battle Two*

In which Mrs. Howland-Thorpe and Mrs. Fleming cause each other to become peevish.

### *Mrs. Fleming Prevails.*

**T**he following week was lively with luncheons and teas at various houses among the families of Newport. The week ended again with an invitation to sup on Friday evening at Marble House.

Mrs. Howland-Thorpe found that this time, she and her husband were seated ten and eleven seats down from Mrs. Vanderbilt. Mrs. Fleming was seated but two seats from Mrs. Vanderbilt across the table. Mrs. Fleming's husband was not in attendance, having departed for the summer to California to sell a new form of combustibles that could explode in mineshafts drowned with groundwater.

After supper, the men left the women to their indulgences and quitted to their brandy and their more important conversation. The men were delighted to find that their hostess' husband had laid out for them cigarettes rolled with one hundred dollar bills, which all agreed constituted the height of wit and which they happily smoked while debating the preferability of using Chinamen over other laborers due to their smaller stature and willingness to crawl into tighter spaces to lay combustibles for mining and track laying.

The women had to content themselves with repairing to the Gold Room with no more important diversion than conversation and turns about the room in pretty pairs, which quite satisfied as it gave them generous opportunity to promenade before each other in their newest acquisitions from Worth of Paris.

Mrs. Vanderbilt was so plainly enthralled by Mrs. Fleming that she appeared quite robbed of the ability to speak with anyone else the entire time. After seeing Mrs.

Vanderbilt spend the greater part of the evening in conversation with Mrs. Fleming, whom no one had seen wear a single jewel of any importance yet that season, while speaking not a word to her, Mrs. Howland-Thorpe could bear it no longer. She crossed the room and approached their conversation.

"Pray, pardon mine interjection, Alva, but I have not yet had the pleasure of an introduction to your friend," said Mrs. Howland-Thorpe. Mrs. Vanderbilt made the introductions and the ladies curtsied to each other and declared their enchantment.

"Ah, a foreigner!" cried Mrs. Howland-Thorpe when she heard Mrs. Fleming speak. "Do. You. Understand. English?" she asked in broad, loud tones.

The room looked askance, embarrassed by Mrs. Howland-Thorpe's ill breeding, for all knew of Mrs. Fleming's superior education and mannish learning. Mrs. Fleming answered her, in clear English, accented with lilting Italian tones, "No. Not. One. Single. Pitiable. Word."

Mrs. Howland-Thorpe was much taken aback at this retort, but kept her countenance and replied, "Ah! How delightful. You speak excellent English." She paused and added, "For a foreigner."

Mrs. Fleming replied with a sweet smile, "And you speak excellent English as well. For an American."

Mrs. Howland-Thorpe could think of no fitting reply to this quill. She gracelessly found feeble excuse to quit the conversation and turned her back to Mrs. Fleming and Mrs. Vanderbilt. As she made to chat gaily with other friends, she heard Mrs. Vanderbilt pick up her conversation with Mrs. Fleming. She stood within close distance so that she could hear their conversation while nodding at her friends' conversation. She heard Mrs. Vanderbilt address Mrs. Fleming seven times as "Contessa Contarini" and four times as "My Dear Contessa."

Mrs. Howland-Thorpe then proceeded to complain to the whole of the room of an aching head. She insisted at full voice that her being stricken by this affliction should not interfere with the evening and urged all to proceed forth with their own general amusement without her contribution. The lady was rewarded for her behavior by being helped to a fainting couch in a cloud of commotion, but the excitement occasioned by the incident quickly died down.

After some time, Mrs. Howland-Thorpe saw that Mrs. Vanderbilt was still as firmly stationed beside Mrs. Fleming as if her shoes were drilled into the floor. Mrs. Howland-Thorpe rose from her recline and declared that her headache had cured itself and that she was strong enough to endure the carriage ride home. No one protested her retirement.

The carriages leaving Marble House that evening were all filled with the same conversation. The guests were all of one mind: as between Mrs. Howland-Thorpe and Mrs. Fleming, it was the latter who prevailed at the night's jousting.

### Chapter III

#### *Mrs. Howland-Thorpe vs. Mrs. Fleming, Battle Three*

In which Mrs. Howland-Thorpe attempts to exhibit artistic innovation of her own, to disagreeable result.

*Mrs. Fleming Prevails.*

**A**fter the calamitous second supper of the season at Marble House, it was plain to Mrs. Howland-Thorpe that she must fortify her garden if she did not wish to be pressed down Mrs. Vanderbilt's list of guests until she dropped off entirely.

She directed her chief landscape architect Fergus Kelleher to spy upon Mrs. Fleming's garden from atop the viewing towers in Mrs. Howland-Thorpe's own garden. She instructed Kelleher to make her so well an Oriental-Italianate garden. To Mrs. Howland-Thorpe's great irritation, Kelleher hesitated at the task, explaining that he had of late befriended the landscape architect that Mrs. Fleming employed, a Master Sugawara from the city of Kyoto in Japan. Kelleher explained that Master Sugawara had spoken enough English to convey to Kelleher the extraordinary refinement of the principles and values of Mrs. Fleming's garden, which were woven with philosophical concepts from the thought and religion of the people of Japan, all of which were deeply foreign to Kelleher.

This was not the reply that Mrs. Howland-Thorpe had hoped to receive in response to her command. She then proceeded to draw out a plan, element for element, planting for planting, for Kelleher to execute for the next week's garden party. Kelleher and his crew toiled mightily and transformed the garden to Mrs. Howland-Thorpe's plan in time for the next party.

When the guests of the party arrived, they found the appearance of Mrs. Howland-Thorpe's garden greatly altered from its state when last they toured it. Gasps rose among the circle. The ladies of the party found the garden ornamented with a profusion of Oriental pagodas of papier-mâché covered in violet and orange peonies and Italianate palazzi in plaster miniature covered in lime green chrysanthemums. The garden was a bacchanal of elements that exhibited such garishness and want of taste that no one could bear to look at any of it for more than a few moments. No one could decide if Mrs. Howland-Thorpe was mocking Mrs. Fleming's garden or whether the garden was merely a spectacular failure of judgment.

Mrs. Vanderbilt turned to Mrs. Fleming on her arm (for Mrs. Howland-Thorpe could not but include Mrs. Fleming in the party, for Mrs. Howland-Thorpe knew that Mrs. Vanderbilt would not attend a party that so plainly excluded her new, dear pet) to see her reaction.

Mrs. Howland-Thorpe exclaimed, "I own that it is not the common sort of garden one sees, but an artiste must follow her own muse to create her work."

Mrs. Fleming made to cup a hand to her mouth and said to Mrs. Vanderbilt in a whisper cast broadly enough for the entire party to hear, "I thought that it was artists who had to suffer for their work. Not the viewers."

As soon as the party left, which was soon, Mrs. Howland-Thorpe without delay summoned Kelleher and let him go on the spot. Kelleher's first thought was not of his wife and children. His first thought was that four years in Mrs. Howland-Thorpe's employ was four years too many. He gathered what things he kept on the premises and walked next door to Mrs. Fleming's home, where he begged to apprentice under Master Sugawara. Mrs. Fleming hired him instantly.

After the calamitous events of the morning, Mrs. Howland-Thorpe retired for the day to nurse an aching head. When she emerged from her convalescence, she went out to look at her garden one last time to see if she could discern in it what was so very different from what all of Newport saw in that Italiane creature's garden. It was dusk and the light had gone from the sky. She beheld that with the departure of the light, the prospect of the garden had utterly changed. Where there had been in the bright day violet, there was now soft lilac. Where there had been orange, there was now salmon pink. Where there had been lime green, there was now pineapple. The garden was now filled with clouds of colour rendered in soft pastels. If only she had been better acquainted with these eccentricities of the play of light on flowers, if only she had more perfectly comprehended the science of the nature of colour, she would have had the foresight to make her party a dusk party. And then, how different the reception might have been!

## Chapter IV

### *Mrs. Howland-Thorpe vs. Mrs. Fleming, Battle Four*

In which Mrs. Howland-Thorpe ends by fleeing into the safety of her own home followed by thousands of clawed feet; the face of the Mona Lisa suffers grotesque injury.

*Mrs. Fleming Prevails.*

**M**rs. Howland-Thorpe felt all the direness of her position in Newport society after the disastrous debut of her Oriental-Italianate garden. She knew that she was but one or two missteps from eternal shunning and banishment from society.

She hired a new landscape architect with the surname of Palladio, which, he told her, was most auspicious in his profession, being the name of the great Venetian architect, and returned to her convention of planting roses that formed the patterns of famed paintings. She had whole, grown rose bushes unearthed and brought at great expense to her garden, and stripped by hand of their leaves and thorns, so that they were all blossoms and stems, and planted in a pattern to resemble the likeness of the Mona Lisa, who was also created by an Italian. She hoped that this new garden would achieve the gesture toward the Continental that would please Mrs. Vanderbilt, while at once cleaving close to what Mrs. Howland-Thorpe knew how to do and what Mrs. Vanderbilt had once declared all delight and enchantment before that Italian creature came to darken the sky over Mrs. Howland-Thorpe's garden.

The debut of the Mona Lisa garden was scheduled for a luncheon upon Mrs. Howland-Thorpe's terrace. The viewing towers from which a survey of the entire garden could be gained also afforded ample view of Mrs. Fleming's garden. Nothing would give Mrs. Howland-Thorpe greater happiness in life than for Mrs. Vanderbilt to ascend the viewing tower and see not only Mrs. Howland-Thorpe's Mona Lisa garden in all its splendor but also to look over and see Mrs. Fleming's garden hideously destroyed.

Toward that end, Mrs. Howland-Thorpe had Palladio contact a renowned naturalist at Brown University. The naturalist in turn referred Palladio to a society of naturalists that captured pests such as moles, voles, and other odious creatures in Roger Williams Park and held them until they could be released unharmed into the deeper wilds of New England where they would molest no one. Mrs. Howland-Thorpe had Palladio purchase nine hundred recently acquired live moles and voles from the society.

She would unleash the moles and the voles into Mrs. Fleming's garden. The moles would instantly dig a lattice of tunnels underneath Mrs. Fleming's garden in search of grubs. The voles would use the tunnels created by the moles to travel from the roots of one plant to another, which they would eat. The voles would also hollow out nests among the roots of the plants in Mrs. Fleming's garden, exposing the roots to air and causing them to wilt, shrivel, and die.

The day before the release of the moles and the voles was uncommonly warm. The sun baked the paving stones of the grounds of Mrs. Howland-Thorpe's estate until she could feel the heat rising in waves as she walked across them and feel it beginning to roast her feet through her shoes.

That evening, after the sun set, she gathered with Palladio and his crew with the sacks filled with moles and voles. She hoped that the heat of the day had not taken too high a toll on the population of vermin and that enough had survived to destroy Mrs. Fleming's garden.

Palladio and his men stood with their great sacks writhing with moles and voles at the edge of the boundary between Mrs. Howland-Thorpe's property and Mrs.

Fleming's. Mrs. Howland-Thorpe stood far back from the property line. She instructed the men not to cross the boundary, for she would commit no trespass upon the property of Mrs. Fleming, nor give her occasion to seek legal redress.

The men opened the mouths of the sacks and the moles and the voles boiled within, eager to drink in the cool night air after being confined all the day in the sacks during the height of summer.

The men heaved the moles and the voles over the property line onto Mrs. Fleming's garden.

What Mrs. Howland-Thorpe had not accounted for, though, was the strange Japonais garden of raked pebbles and stones that bordered the whole of Mrs. Fleming's property. The pebbles and stones had been seared all day by the sun and were still far too hot for the moles and the voles to creep upon.

As soon as the moles and the voles landed on the hot pebbles, they all of a body let out a great shriek, retreated from Mrs. Fleming's garden, and swept back toward the cool grasses of Mrs. Howland-Thorpe's own garden in a black, scrabbling tide of hair and nails.

Mrs. Howland-Thorpe saw the sea of moles and voles washing toward her and turned and fled with a great cry into the house.

By the next morning, the moles and the voles had dove into the earth, burying and burrowing into the fragrant, freshly tilled soil, ruining and leaving in terrible disarray all the rose bushes. Despite Palladio's war to purge them, by the week's end, the Mona Lisa's face was crossed with the lines of the moles' and the voles' tunneling and marked with pocks like a leper.

Mrs. Howland-Thorpe quickly had her manservant deliver letters of regret that the luncheon had to be deferred until the heat of the summer relented. Then she let Palladio go, and sent him on his way in a hail of abuse upon his person and his race.

After Palladio departed, Mrs. Howland-Thorpe once again went out to her garden to take bitter survey of her failure. Looking at the pits and craters and tunnels disfiguring the face of the Mona Lisa, she again decried her ignorance. Had she only understood more wholly the characters of burrowing creatures, had she only been better friends with Natural Science, how different the fate of the garden might have been!

The annihilation of the Mona Lisa garden had broader consequences than Mrs. Howland-Thorpe could have predicted. The moles and the voles did not honor legal property lines and refused to stay confined within the boundaries of Mrs. Howland-Thorpe's property, particularly when she hired a new landscape architect, one Mickey Dunleavy, to wage war on the vermin with poisons and flooding and flames. The moles and the voles made mass exodus from Mrs. Howland-Thorpe's property to the Israel of the property of all of her neighbors, save the property of Mrs. Fleming, whose entire property was moated with the deeply excavated Japonais sand garden, whose purpose, it was later learned by Newport society, was not just aesthetic and philosophical but also to discourage the infestation of vermin such as moles and voles.

When the neighbors found themselves at a loss for how to respond to this invasion of pests, they contacted the same renowned naturalist at Brown University whom Mrs. Howland-Thorpe's man had contacted, who referred them to the same society of naturalists who had sold the moles and the voles to Mrs. Howland-Thorpe's man, and who made passing reference to the purchase of nine hundred moles and voles just the week prior, which purchase was paid for by a cheque drawn on Mrs. Howland-Thorpe's account.

The information quickly spread. Although no one openly accused Mrs. Howland-Thorpe of the attempted sabotage, at the next evening at Marble House, Mrs. Howland-Thorpe was seated twenty seats from Mrs. Vanderbilt, the last seat at the end of the table before dropping off entirely.



Mrs. Vanderbilt had declared the evening to be a "beach party." Toward that end, she had had laid a great dune of sand that ran down the middle of the dining table from end to end. All the guests were given miniature spades and pails of silver and encouraged to dig in the sand, in which were buried diamonds, sapphires, and rubies. However, Mrs. Howland-Thorpe's setting lacked the spade and pail. Whether this was but an oversight or a bald insult, she dared not bring attention upon the circumstance by calling for a spade and pail lest the slight become generally known. Thus, Mrs. Howland-Thorpe discreetly resorted to the employment of her soup spoon to dig in the sand with the other guests, though it profited her none as there seemed to be nothing in the sand all the way down at her end of the table but shells, and vile, hairy crab shells at that, and the spoon left grains of horrid sand in her soup when she later used it for that purpose.

Her only solace of the evening was that her immediate neighbors at the table were both men who were wholly occupied in their efforts to impress each other with tales of workmen in their employ lost in mining accidents due to fire-damp explosions, tunnel collapses, suffocation by gas, boiler explosions, hoisting cage falls, in-rush of ground water, and hoisting cage overwinds, so that she was allowed to bear her shame in silence.

## Chapter V

### *Mrs. Howland-Thorpe vs. Mrs. Fleming, Battle Five*

In which an auction, the viciousness of suffragettes, and fate conspire to rescue Mrs. Howland-Thorpe's standing in society.

*Mrs. Howland-Thorpe Prevails.*

**A**fter the beach party, Mrs. Howland-Thorpe's anxiety at the precariousness of her position rose near to panic. She was quite sensible of the fate of women of society shunned by their equals. How does a woman with no friends fill her days? With husbands away tending to railways and mines and banks, no one to talk to but servants, nothing but lonely shelves of vases and mortally dull books to stare at for hours a day, no entertainments other than attending church, and nothing toward which to look forward but forty or fifty more years of such existence, how should she make her time in this world bearable? She was not engaging in petty rivalry. She was fighting for her life.

Yet, light pierced into the darkness of the valley of Mrs. Howland-Thorpe's fortunes with an auction of a rose of unusual qualities. It was a rose that could grow submerged in salt water rooted into the sea floor.

The rose was being offered by Sotheby's as part of their annual lot of curiosities that appealed to the naturalist collector.

The rose was the result of generations of hybrids. It was not in truth a rose, but an altered form of an aquatic plant related to common eelgrass. The eelgrass family was but one of several forms of plants that had once been terrestrial flowering plants but that had migrated of their own accord to an aquatic existence and that now pollinated in the water. The sea-rose, as this item to be auctioned was called, was but a form of this eelgrass relation that had been coaxed by enterprising botanists at Harvard University to bud flowers larger and larger and of more vivid colour until they resembled roses. The lot for auction included not only one healthy adult male plant and one female in each of eleven colours, but all the legal rights to make cuttings or spawn further plants.

When Mrs. Howland-Thorpe learned of the auction of the sea-rose, she knew that she must have it. It was her final prospect to regain her position in Newport society. Whatever the cost, she knew that she must win the auction.

When it became generally known that Mrs. Howland-Thorpe intended to travel to New York to bid on the rose, a great excitement filled the parlors of Newport. The ladies were all enchanted by the idea of a rose garden under the sea. They had also begun to pity Mrs. Howland-Thorpe, whose future in Newport society had once seemed so promising. Mrs. Howland-Thorpe, borne aloft by this renewed attention to her, which she had so sorely missed during the entirety of the past season, promised that she would win the sea-rose at auction and that by the next summer's garden season, she would have planted a garden on the sea floor in the waters off of Newport and that she would hold a party for them all to descend in iron diving bells to view the garden for themselves.

However, Mrs. Fleming, true to her contrary nature, delivered a lecture inveighing against the sea-rose that no one wished to hear, during tea at her home. Mrs. Fleming stated that she had read scientific treatises condemning the sea-rose as a dangerous parasite that would overpower the natural marine flora and would destroy the delicate natural systems of the seas they were planted in. The ladies resented being lured upon false pretense of tea and being subjected to a lecture. If they had wanted to be lectured to, they would have attended colleges. In this, Mrs. Fleming greatly overestimated her friends' minds and underestimated the force with which she would have to pound and pound to make the least bit of learning or moral nourishment enter into them.

The week after Mrs. Fleming's irritating oration, all supped at Marble House again. Mrs. Fleming found that that evening, she was seated eight seats away from Mrs. Vanderbilt at supper.

Mrs. Howland-Thorpe and her husband repaired to New York for the auction. However, Tiberius Howland-Thorpe was ultimately not in attendance at the auction with his wife to curb her bidding as was his custom. At the time of the auction, Mr. Howland-Thorpe lay in the hospital, convalescing from a round of fisticuffs he endured when, two days before, while walking home from the office of Howland-Thorpe Railways to the Howland-Thorpe townhouse on Fifth Avenue, he thought it a good idea to vilify and harangue a march of suffragettes, who, to his great astonishment, turned and beat him savagely. While lying in his hospital bed nursing his wounds, he penned a letter to his wife inveighing against the impetuosity of Woman and urging her to remain mistress of her emotions at the auction and to exercise the self-command of which he knew she was capable in her purchases, making reproaching reference to the ichthyosaurus skeleton that she had bought at auction two seasons ago that lay piled in a trunk in the storage rooms behind the servants' quarters at Newport, now that fossils were no longer the fashion.

At the auction, a number of desultory bidders bid against Mrs. Howland-Thorpe for several rounds but quickly dropped away as the price climbed higher. Only Mrs. Fleming continued to bid against Mrs. Howland-Thorpe. After the humiliating indifference with which her entreaty to the ladies of Newport society had been received, she could not but defend her principles and attempt to buy the sea-rose for herself so that no one could plant it and spread it across the sea floor.

When the auction price surpassed ten times the opening bid, Mrs. Fleming was compelled ruefully to drop out of the bidding. Mrs. Howland-Thorpe won the auction, but not before needlessly bidding against her own highest bid four more rounds, driving the ultimate price far above that of the infant tyrannosaurus skull that had set records two seasons ago, simply to end the auction in a flourish of spite in Mrs. Fleming's direction. Let them know, thought Mrs. Howland-Thorpe to herself, that Honoria Howland-Thorpe knows how to end a battle and end it with style!

When Mrs. Howland-Thorpe returned to Newport to the final supper of the season at Marble House, she returned in triumph. Mrs. Vanderbilt had declared that

this supper would be a "riding party." The guests were led to the ballroom. The floor had been covered in thick carpets of grass. At the center of the room was a split rail fence and posts flanking mangers. Tied to the posts was a live horse for each guest, shod with special rubber shoes. The guests were helped atop the horses by waiters dressed as scarlet-coated grooms and found the horses complexly caparisoned about the shoulders with a special fitted tray that bore plate and silver and glass. Rubber hoses led down to bottles of champagne in iced buckets tucked into saddlebags at either side. There was more clatter than Mrs. Vanderbilt would have liked, as the horses swayed from weakness due to having been fasted for four days so that they would not do at the party what every horse does in every parade.

At first, Mrs. Howland-Thorpe was consumed with bitter resentment to find that even after her victory in New York, she was not placed nearer to Mrs. Vanderbilt than half way along the fence. Instead, she found herself trapped in the center of a triangle of men including Mr. Howland-Thorpe who talked of nothing but the ingenious campaign of Howland-Thorpe Railways and other railway companies to advertise excursions to sport-hunters, who rode the trains and shot from the windows and atop the roofs not at the Plains Indians but at the herds of buffalo that the savages lived upon, leaving the carcasses to rot beside the tracks by the millions. They droned on about how the railways thus managed to reduce the herds in a few tidy years from nearly sixty million to less than three hundred creatures in the wild, thereby starving off the Indians, ending their pernicious raiding parties, and silencing their endless claims of breach of treaty, all while charging passage fare to the men to take care of the railway's nuisances, while Mrs. Howland-Thorpe seethed at the theft of her moment of glory.

However, she soon realized that the horse she was seated upon so far from Mrs. Vanderbilt was the only white horse save for Mrs. Vanderbilt's own, and that they two were separated from each other only to punctuate the tableaux more forcefully.

At one point in the evening, Mrs. Vanderbilt had her groom unhitch her horse and walk it across the room over to Mrs. Howland-Thorpe's horse. Mrs. Vanderbilt gave Mrs. Howland-Thorpe a great pink rose and invited her to offer it to Mrs. Vanderbilt's horse. Mrs. Howland-Thorpe did so. The horse accepted the rose and ate it whole, for it had not been given anything to eat in four days.

Mrs. Howland-Thorpe's heart soared at her triumph.

## Chapter VI

### *Mrs. Howland-Thorpe vs. Mrs. Fleming, Battle Six*

In which Mrs. Fleming beseeches Mrs. Howland-Thorpe to think of the dolphins and her own womanly worth; Mrs. Howland-Thorpe forgets her breeding; Mrs. Fleming forgets her breeding.

*Mrs. Howland-Thorpe Prevails.*

**I**n the final days of the summer season, Mrs. Howland-Thorpe was greatly astonished to find that Mrs. Fleming came to call upon her several times at the Howland-Thorpe house. Mrs. Howland-Thorpe had her manservant inform Mrs. Fleming that Mrs. Howland-Thorpe was engaged, and Mrs. Fleming left each time accomplishing nothing more than the leaving of her card for Mrs. Howland-Thorpe.

Mrs. Howland-Thorpe had always fancied herself a great walker. Yet, the heat of the summer kept her from taking her exercise until dusk. Thus, each afternoon, at sundown, Mrs. Howland-Thorpe took her daily constitutional along the path where her garden ended in the cliff walk overlooking Sheep Point Cove.

One afternoon, Mrs. Howland-Thorpe rounded the final copse of trees along the cliff walk dividing her property from the Flemings' property to find to her consternation that Mrs. Fleming stood there in apparent attendance of her. Mrs. Fleming greeted her civilly and asked to join her on her promenade. Mrs. Howland-Thorpe felt all the perverseness of the presumption, yet so great was her surprise that policy took hold and she could think of nothing to do but dumbly assent.

Mrs. Fleming guided them to one of the promontories that overhung Sheep Point Cove. She asked Mrs. Howland-Thorpe to look to the sea. When nothing appeared for them to see, Mrs. Howland-Thorpe inquired as to the purpose of their vigil.

At that moment, motion began to stir the sea on the horizon. Little sprays appeared in a line heading toward the cove.

The line of plumes revealed itself to be a colony of dolphins, diving and spouting as they made their way into the cove.

"They come in each day at dusk," said Mrs. Fleming. "They sup on the fish that live in this cove and that retreat here from deeper waters for the evening. The fish that the dolphins eat in turn feed on the smaller forms of fish that never leave the cove that in turn feed on the natural marine flora native to this cove and this cove alone. If you plant the sea-rose here, it shall choke the native flora, which shall in turn starve out the smaller fish, which shall in turn starve out the larger fish, which shall in turn starve out the colony of dolphins."

Mrs. Howland-Thorpe coloured with incense. The manner of Mrs. Fleming's lying in wait to commandeer and sermonize to Mrs. Howland-Thorpe demonstrated an appalling want of breeding and did nothing to recommend Mrs. Fleming's suit. As there was for the very first time all season no one about them to hear their exchange, the lacing that had held back all that Mrs. Howland-Thorpe had wished to say to Mrs. Fleming began at last to pop open.

"I am profoundly stirred by the interest you take in the happiness of beasts," said Mrs. Howland-Thorpe. "I wonder whether your powers of empathy extend so warmly to the concerns of your friends and neighbors."

Mrs. Fleming seemed unsurprised at this glancing yet bald reproach. She replied, "I own that I am not proud of everything I have said or done this season. Let us be friends, Honoria. May I call you Honoria?"

"You most certainly may not!"

"I do beg your pardon. This has been a difficult season for all. New places, new friends, they are never easy alterations to make. Yet, let us lay down our quarrels and consider our battles drawn and our tallies equal."

Drawn, thought Mrs. Howland-Thorpe to herself. She would not consider their battles drawn until this creature was driven out of Newport society.

"You should not have supposed it so easy and swift a business," said Mrs. Howland-Thorpe, "to come in and take what others have built over so long a time."

"I own that I was impudent," said Mrs. Fleming. "I was new to this society and this country. The coldness of your welcome stung me and pricked my pride. Yet, I have abused my higher birth and my superior powers of learning and discourse to humiliate and make ridiculous in the eyes of all a woman whom I should have been honored to call a friend and neighbor."

"I have most certainly not been made ridiculous in the eyes of all! You presume too much!"

"This is not progressing as I had hoped. Let us begin again. Why do women need to reduce each other so? Are our lives truly so vacant that we must fill them with quarrels and jealousies so that we have something to do? We should to the contrary be lifting each other up in sisterhood and cheering for each others' triumphs. We should

be applauding each other toward greater achievements than getting seated two seats from Mrs. Vanderbilt at supper at Marble House."

"And you but seek the same! For all your learning and high birth and talk of tender concern for dumb beasts, you have done nothing since you arrived but seek the same!"

"I deserve that chastisement," said Mrs. Fleming. "I have not spent my time here in meaningful endeavour. But there is so little of seriousness that women are suffered to do with their lives. I thought it would be different in this country. We should be urging each other toward useful works. Women can do great things together."

"And now that I propose to do a great thing, a thing that has never been done, you plot to thwart me."

"Your aim in planting the sea-rose is to do no greater a thing than fix your position in Newport society, heedless of the cost to innocent creatures."

"Do not presume to tell me what mine aim is!"

"Your undertaking is loathsome, Honoria."

"If you find it loathsome, then look away! But no. You will not look away. Because you wish to see it so well as anyone. You wish to see it and denounce it and tower over us in your virtue, when in truth you burn to see it so well as anyone!"

"Honoria, your womanly worth is firmer than Mrs. Vanderbilt can increase or reduce season to season. You need not conduct yourself like a mewling thing, whimpering to suck on anyone's teat. It is beneath you. It is embarrassing to witness."

"Such insolence!" Mrs. Howland-Thorpe gathered her skirts and turned to leave.

"See," said Mrs. Fleming. "That is the problem with American Arrivistes. You may have all the money of Croesus, yet you shall never have an original thought in your heads, you shall never have true refinement."

"Then get you back on the boat you came on and go back to your own country and see how very refined you shall look sitting on broken chairs and wearing decrepit gowns without American Arriviste money!"

"Do not make me to do this," cried Mrs. Fleming to Mrs. Howland-Thorpe's back. "I shall stop your garden, Honoria."

"You may try!"

"I shall stop your garden in so stunning a fashion that you shall never dare try again to plant sea-roses or show your face in Newport society. And that is a promise."

Mrs. Howland-Thorpe turned back toward Mrs. Fleming and cried, "You shall try and you shall fail and it shall be the cause of your own ruin, for if you dare to oppose my endeavour, I shall drown you in a tide of roses!"

With that, Mrs. Howland-Thorpe turned and continued her march back to her house.

## Chapter VII

### *Mrs. Howland-Thorpe vs. Mrs. Fleming, Battle Seven*

In which Mrs. Howland-Thorpe invites all to witness the debut of her garden of wonders except for Mrs. Fleming.

*Mrs. Fleming Prevails.*

**M**rs. Howland-Thorpe did not idle in beginning her work on the aquatic garden. When the season at Newport ended and the families began to repair back to New York, Boston, and Philadelphia, Mrs. Howland-Thorpe stayed on.

She engaged the services of not only a new landscape architect, an enterprising young man named Grinnell Witherspoon who had apprenticed under Frederick Law Olmstead, but also those of theatre impresario David Belasco. Together, the trio drew the plans for a garden of wonders in the shallow waters of Sheep Point Cove.

Mrs. Howland-Thorpe leased a vast greenhouse in Newport. Throughout the winter, she divided and grew sweeping meadows of the sea-rose in great aquariums and vats that a force of attendants nursed through day and night.

As soon as weather broke the following spring, a small army of engineers and horticulturists was suited up to begin the planting of the garden.

The construction of the garden proceeded without delays or disappointments throughout the spring due to the lessons in Natural Science that Mrs. Howland-Thorpe had amassed as the costly prizes wrested from her failures at her two gardens of the past season.

From her first garden, she applied what she learned of the Natural Science of colour and light. The sea floor was as dim as dusk. In such feeble light the most fashionable colours of flower, pink, white, and red, were rendered dull and indistinguishable. Mrs. Howland-Thorpe thus chose the violets, oranges, and lime greens that she had been so scorned for using in her Oriental-Italianate garden, for those colours when viewed in the meager light of the sea-floor were turned into lilac and salmon and pineapple. Mrs. Howland-Thorpe thus had a palette of soft pastels to work in.

From her second garden, she applied what she learned of burrowing creatures. The greatest puzzle posed by the sea-roses was how to anchor them in the loose soil of the sea-floor until they took root. She discovered that burrowing creatures would nest most deeply into the earth when they were threatened or injured. Thus, she purchased thousands upon thousands of small crabs from fisheries throughout the Narragansett. She had her team of gardeners drill a hole into each crab, and insert a root of a sea-rose into the creature's living flesh. When the crab was released upon the sea-floor, it would seek to hide itself because of its injury. The crab would burrow deeply into the sea floor and anchor itself there, tugging down the root of the sea-rose with it. There, it would die and its flesh would serve to nourish the sea-rose as the roots took hold.

Thus did they plant a dreamland on the sea-floor with sea-roses along twelve-foot stems in a likeness of Neuschwanstein Castle that waved with the tide, surrounded by a labyrinth of sea-rose hedges. There were great topiaries of thickly bunched sea-rose bushes pruned in the shape of mer-maidens. There were mountains in miniature made of mounds of sea-roses divided by rivers of sea-roses in contrasting colours. Great statues encrusted with sea-roses depicted battles between Poseidon and the Scylla and other horrors of the deep. Howland-Thorpe Railways constructed rails in miniature that curled through the aquatic garden and over the peaks and down the valleys of the landscape of the sea floor. A diving bell was modified with wheels to ride the rails. It seated two and could be propelled by the motion of a sole gentleman's pedaling or drawn along by pulley.

When the summer season arrived, Newport was almost wild with excitement at the unveiling of the garden. All of Newport society was invited to attend its debut and the important newspapers all sent men to write about and take daguerreotypes of the garden.

At the debut, Mrs. Howland-Thorpe, with her husband Tiberius at her side, stood at the prow of a ship filled with all the entourage. She and Mrs. Vanderbilt would be the first to descend in the diving bell down to view the garden. Mrs. Howland-Thorpe's pride and satisfaction at this moment were beyond expression.



Mrs. Howland-Thorpe spoke a dedication of the garden to the honor of Mrs. Vanderbilt, but she deemed herself no great orator so the dedication was of necessity brief. She ended the dedication by turning to Mrs. Vanderbilt and saying, "And may the fecundity of this garden ever be an indication of the honor that the Vanderbilts bring to Newport society."

When she was done with the dedication and as Mrs. Vanderbilt prepared to be assisted from the ship to the buoyant platform bobbing in the sea that contained the diving bell and the beginnings of the rails where they descended down, a great discharge emanated from the water.

The force of the blow rocked the ship and a great cry went up as ladies clutched the arms of their husbands to keep from being tossed off the ship and into the sea.

First came the bubbles, great belches of bubbles that blossomed up and churned the sea about the ship into foam.

Pandemonium ensued as the ship lurched from side to side in the battering waters. Ladies slid about the deck amid great confusion and put up a horrible cry.

Then came the fish, great expanses of dead fish, floating on their sides and flashing silver in the sun.

Men bravely commanded, "Women and children first!" while racing about searching for the lifeboats, of which there were none, since this was but a modest vessel intended for pleasure sailing near shore.

Then came the carcass of a dolphin, with her calf circling about her, the calf's dorsal fin torn nearly off and grievously flapping.

When the waters had calmed sufficiently, the company began to accept that they would not go down to watery graves this day like sailors lost at sea, for they were only some hundreds of feet from shore, and never in any danger, although many of the women continued to clasp hands while softly singing "Nearer My God to Thee."

At last came the sea-roses. They floated up in blankets of green and orange and violet until they carpeted the surface of the sea.

The general understanding arose that some combustible material had created an explosion in the aquatic garden.

Mrs. Howland-Thorpe and her husband were helped onto the buoyant platform beside the ship and into the diving bell to view what had become of the garden. The bell descended down the rails into the sea.

The deck of the ship was alive with speculation until the clarion at the top of the pulley sounded, indicating that the passengers were ready to be retrieved.

The pulley was cranked to draw the diving bell back up along the rails and onto the platform and the passengers were disgorged. All of Newport society saw Mrs. Howland-Thorpe weeping quietly onto her husband's shoulder. She lifted her kerchief from her face to shake her fist and cry "Saboteuse!"

Mr. Howland-Thorpe to his great discredit could not stifle a grin spreading over his face. Mrs. Howland-Thorpe hissed in his ear, "What are you beaming at!"

Mr. Howland-Thorpe replied, "Forgive me, Honoria. But what man does not enjoy watching a great public fight between two women trying to scratch out each other's eyes? Well, you have always had a talent for wasting my money, but at least this time, I got some entertainment of it."

Mrs. Vanderbilt gazed at the appalling spectacle and then turned away from Mrs. Howland-Thorpe to her own party and asked aloud if they were done and when they would be returning to shore.

As Mrs. Vanderbilt led her party to the cabins below, Mrs. Howland-Thorpe cried, "She has not defeated me! I shall prevail! I shall cover the globe in roses! I shall fill the seas with roses until they choke!"

## Chapter IX

*Mrs. Howland-Thorpe vs. Mrs. Fleming, Battle Finale*  
 In Which Mrs. Fleming's treachery unwittingly births the Ladies'  
 Aquatic Gardening Society and prompts the Great Changing.  
*Mrs. Howland-Thorpe Prevails.*

It could not be known in the year following Mrs. Fleming's sabotage of Mrs. Howland-Thorpe's garden how profoundly the events that occurred in the waters of Sheep Point Cove would alter the whole of the world. It would still be eight years before the last lobster supper was auctioned by Sotheby's. There would still be sea otters for fifteen more years, and even today, dolphins are still reported to be sighted far out at sea every few years. Even sea-horses, which were singular creatures that had the head of a horse and the tail of a dragon, and were as fragile as paper lanterns and as small as sparrows, would still endure for six more years.

In the year following the exploding of the aquatic garden, two lawsuits were filed, *Honorina Orrington Howland-Thorpe vs. Cecilia Contarini Fleming* in New York and *Cecilia Contarini Fleming vs. Honorina Orrington Howland-Thorpe* in Rhode Island.

In the wake of the filing of these lawsuits, Mrs. Fleming appeared to withdraw from Newport society. However, Mrs. Howland-Thorpe believed that she continued to feel Mrs. Fleming's presence. In the course of marshalling evidence for the lawsuits, Mrs. Howland-Thorpe attempted to investigate the ruins of the aquatic garden. The first two times she planned to enter the waters of Sheep Point Cove to do so, Mrs. Howland-Thorpe and her lawyers arrived to find the bay churned with fish offal and blood, and the water being sliced by circling fins.

Further, there were mysterious incendiary bottles of alcohol threaded with fuses thrown through the windows of Mrs. Howland-Thorpe's greenhouse six times that failed to wreak damage only because they dropped into vats of water or rolled into puddles.

When she was at last able to reach the ruins of the combusted garden safely, Mrs. Howland-Thorpe discovered within the radius of the blast a few stubborn, surviving sea-roses that had tolerated the crush of the explosion. Further, they seemed to have multiplied wildly in mere weeks now that their feebler nest-mates had been eliminated, for they were surrounded by newlings bearing their resemblances, budding from the sea floor in rings about them. She unearthed them and brought them back to her greenhouse to study and cultivate.

She learned that in addition to their hale and fertile nature, they did not require anchoring with crabs to root into the soil. They could be plopped into the water and they would sink and root themselves.

Thus did Mrs. Fleming's exploding of the aquatic garden identify for Mrs. Howland-Thorpe a new, formerly unappreciated, and truly heroic strain of sea-rose.

In response to this discovery, Mrs. Howland-Thorpe proceeded to form the Ladies' Aquatic Gardening Society, the mission of which was to cultivate a race of New Sea-Roses from these Adams and Eves to form her next garden, the location of which would be no less than the entire globe. The society embarked on a campaign to elicit contributions to hire ships to drop the self-propagating, self-anchoring New Sea-Rose into the waters along all the major shores of the world to bring beauty to even its most benighted of spots.

It could not be known at that time that the New Sea-Rose had other uncommon properties.

It could not be known that its talent for replication would rival that of the most promiscuous and monstrous of funguses.

It could not be known that not only could the New Sea-Rose eat most anything that came near it through its roots and its very petals, nothing would eat it in turn, for in addition to being hardy, fecund, and ravenous, it was poisonous.

It could not be known that the New Sea-Rose could attach itself to any surface, sandy or rocky, open or forested, or that it could even adhere to ships and slow moving creatures such as whales. It would burrow its roots into them and cover their undersides in blooms until the tendrils destroyed their hosts and left them eaten through with tunnels like sponges in which the flora's new brood would spawn and from which they would burst to further cover the sea-floor.

Thus did Mrs. Howland-Thorpe proceed to open her first party of the following summer season in ignorance of the historic nature of what she would do that day. Mrs. Howland-Thorpe had quietly announced a party to introduce the New Sea-Rose to Newport society and to debut the plans of the Ladies' Aquatic Gardening Society to gift the rest of the world with the New Sea-Rose. A crop of New Sea-Roses was to be unveiled in aquariums in Mrs. Howland-Thorpe's garden, and then taken by the party and dropped into the waters of Sheep Point Cove.

Mrs. Howland-Thorpe had hired a private force of men at arms to patrol and guard Sheep Point Cove in the week leading up to the party. No real mischief arose, although the men did make chase after cloaked visitors three of the seven nights.

On the morning of the party, Mrs. Howland-Thorpe found, to her warm pleasure, that guests began arriving an hour early. It appeared that her campaign had managed to recapture the imaginations of those denied a view of the aquatic garden last season. There were also scholarly men learned in the Natural Sciences whom she had befriended while promoting the society's work.

Mrs. Howland-Thorpe had of course invited Mrs. Vanderbilt to the party. Mrs. Vanderbilt had not replied to the invitation with an acceptance or apologies.

Good sense advised that it was not prudent to commence a party without waiting to see if Mrs. Vanderbilt might attend. Yet, Mrs. Howland-Thorpe's friends and colleagues had been gathered waiting here in the salon for over an hour.

They were waiting to watch her will a brave new vision into being.

Her will. Her vision. Her moment.

She did not wait to see whether Mrs. Vanderbilt would attend. She opened the doors leading out to her garden. She welcomed her guests to march with her and descend upon the sea. ○

**Ray Nayler's <<http://raynayer.net>> poetry has appeared in the *Beloit Poetry Journal*, *Weave*, *Juked*, *Able Muse*, *Sentence*, *Phantom Limb*, and many other magazines. His novel *American Graveyards* was published in the UK by Third Alternative Press. Ray's cross-genre short stories have been published in *Ellery Queen's Mystery Magazine* and the *Berkeley Fiction Review*, among others. The author is a diplomat with the Department of State, currently posted to Bishkek, Kyrgyzstan. A Russian speaker, he has lived and worked in Moscow, and in every country ending in -stan except for Pakistan and Uzbekistan. Ray's first story for us examines the question of memory and . . .**

# MUTABILITY

**Ray Nayler**

*We are as clouds that veil the midnight moon;  
How restlessly they speed, and gleam, and quiver,  
Streaking the darkness radiantly!—yet soon  
Night closes round, and they are lost forever:  
—Percy Bysshe Shelley*

**I**t was an almost perfect café. It was in a red brick building built sometime in the early twentieth century: a mass of art deco, faux-Moorish and Russian influences, punctuated with stained glass and onion domes. You entered through an Arabian Nights archway into an anteroom of cracked hexagonal tiles and robin's-egg plaster. Here, you could take off your coat and hang it on one of the brass hooks along the right-hand wall. Turn left through another arch—this one crawling with chipped plaster grapevines—and you were in the main room. This room had a domed ceiling like a mosque or a Turkish bath house, blue Byzantine tiles on the floor, and layers of crumbling posters on the walls interspersed with framed pictures and notes signed by customers. The age-spotted mirrors and dusty bottles of an ancient, hand-carved bar dominated one side of the room.

The bar was where the owner was always to be found, rubbing his shaved head, staring at a game of chess. He always played against one of three different opponents. Opponent One was a gaunt man in a dirty collared shirt who chewed, repulsively, on a piece of string hanging from the corner of his mouth. Opponent Two was a heavy, slope-shouldered man. He kept his coat on and played quickly and impatiently. Opponent Three was a girl, thirteen or so, with a nose she was trying to grow into and blonde hair that looked like it had been rubbed in ashes. One so rarely saw children these days. Very serious, she always came in with a book—a real book. Where was she getting them?

It was unclear who won any of the long, silent games. Once they were over, Opponent One or Opponent Two would get up and leave, with no hint of triumph or desolation. Opponent Three would stay and read her book for hours, accepting the occasional cocoa on the counter nearby while the owner busied himself with other things. His child? Who knew? The owner never spoke to the café's customers, with the exception of these three.

The rest of the room was filled with tables, chairs, and light. The tables were an assortment of round café tables, square or rectangular tables from restaurants or offices long since gone, high tile-topped wrought-iron tables of the kind you might find in a garden or on a balcony somewhere, big scarred oaken slabs that might have come from a warehouse or factory. The chairs were also a mix: some straight-backed, some cane, some wicker, some just plain stools. All were defective in their unique way, and all demanded different techniques for getting comfortable. The chairs and tables were never to be found in quite the same configuration when Sebastian came in in the mornings. The light was never in the same configuration either: it fell piebald through the stained glass panels at the top of the windows in a moody shift along the tiles and tables and chairs, dependent on cloud and season.

And so the café had the feeling, at once, of agelessness—its ancient building, its collection of rescued furniture like a museum of other places, its continual game of chess in the corner—and of change: the patterns of color-stained light and the restless puzzle of tables and chairs. All this, and the coffee, sandwiches, and macaroons were excellent. All this, and the service was good.

But what made it nearly perfect was Sebastian's place in the corner, against the wall furthest from the entrance, by the windows. Here there was an enormous, worn, purple-velvet armchair and a massive oak table. There was enough room on that ancient table to spread his work out; the terminal and the notebooks he liked to use when he wanted the mechanical action of writing by hand, the cup of coffee brought steaming to the table by one of the students from the nearby universities who worked here (they were like the light and the chairs and tables, moving always elsewhere). The waiters never came around to ask if he wanted anything else, but they were always near the bar, scanning the customers for a motion that meant something was needed, that meant it was time for the check.

He had found the café at a terrible time in his life. He felt, in a way, as though the café had saved him. The long days of work, or of just watching the light slide across the floor, or just watching other customers—in hushed conversation, or bent over their terminals, or just staring off at nothing—made him feel a quiet part of something. He was welcome here. He was known, but left alone. He could work here in a way he could never work at home. At home, when he tried to attack a particularly difficult problem in the work, something would distract him. Hours later he would find himself staring blankly into his terminal, reading about god knows what insignificant detail of research on something completely unrelated to what he had been looking for. Here, surrounded by pleasant, human-scale distractions, he found his focus.

Sebastian had noticed her long before she approached him. More exactly, he had noticed her notice him. He'd looked up and caught her staring at him. Later he would examine the moment: rain outside that the wind occasionally drove against the windows, streaking through the dust in alluvial fans toward the bottom of the glass. A special feeling of refuge in the café that day. The smell that the rain brought in along with new customers seeking shelter—one of whom was this tall, dark-haired woman in a gray dress and moss-green scarf. It was a hard, autumn rain that said winter was coming, a rain that drove the loosening gold leaves from their branches to the ground. He had not seen her before, and he caught her looking at him—really looking at him, in a way at once rude and mystifying. She looked

away when he looked up, but he was aware of her glancing at him while he worked. The rain hammered the streets and the buildings outside and the place filled up with more dripping refugees. When he came home that evening, the maple in the courtyard, which that morning had been wrapped in red and yellow, was a winter skeleton.

The next day she was there early. She stayed most of the day, with a terminal for company. Also the day after. On the fourth day she stopped him in the anteroom. Outside, the evening street was shadow-colored. Above the buildings, the flushed undersides of clouds were dark blue and salmon. He was lifting his ancient shooting jacket from a hook. She came in, reached for a threadbare peacoat. Then she stopped, resting her hand on the collar of her coat, and turned to him.

"I have a strange request."

He had the jacket on and was shifting it to fall correctly over his shoulders. There was a little whirring blade of cold air in the anteroom, and it nipped at his wrists and climbed up his pant leg. The world, hesitating between fall and winter, all brown, dry leaves and flights of migrating birds headed south. "How strange is it?"

She had small crows' feet around her eyes, a vertical worry-line between her high, dark eyebrows. Longish hands, unpainted fingernails cut short. She could have been a musician, or many other things.

"I live near here. I wonder if you would come to my apartment so I can show you something."

What did he read in her face? Impossible to say. There should be a class offered in reading the expressions of others. Perhaps there already was: he would ask his terminal. "All right. Now, you mean?"

"If it's not too much trouble." She began, quite clumsily, to put on her coat, dropping the mossy scarf and grey gloves on the floor in the process. He picked them up for her, handed them back. She carefully avoided touching him when he did so. The impossibilities of reading other people. Were some people able to do so? He thought yes, certainly better than he. They went out into the cold street.

Her apartment was on the next block—but because the apartment buildings (most of them in this section of town very ancient) were enormously long, it was a ten-minute walk. The days were shortening, and the chill filled him with positive melancholy: winter was hot drinks and flushed cheeks and good books. Leaves scuttled across the pavement. Overhead, the dark spiderweb of the Nanocarbon Elevated Metro (NEM) striped black through the indigo air, a train dopplering past. For some reason, they did not speak much. She was tense. She seemed to be working herself up to something. She did tell him her name: Sophia.

Her apartment was on the third floor of an unobtrusively upgraded old building. The lack of draftiness inside was probably due to insulating nanofiber injections into the walls. The modern voice/ret scanner near the entrance to her stairwell posed as an antiquated *domofon*. The dismal authenticity of the concrete stairwell had been maintained. The apartment was high-ceilinged but small, just one rectangular room furnished with a *matroshka* furniture cluster, which she converted with a touch to its table and chairs format. A kitchenette near the windows overlooked the street. Refrigerator unit, old-fashioned teakettle, instantheat, a cabinet from which she drew two mugs and a teapot. While she was making the tea he politely scanned the room. Besides the *matroshka* unit, a bookshelf along one wall held a selection of music theory books, two terminals not of the latest make, a violin, and a shelf of carefully collected, vintage psychoanalytical works—not first editions, but well-known translations. On the opposite wall, a painting hung in which several female forms dissolved in a grey-and-red-streaked fog. Difficult to place its period: eccentric and

not of any particular school, artist likely an unknown, but fantastically talented: the piece moved him. He looked away from it.

Sophia set the two mugs and the teapot on the table. The apartment was full, now, of the scent of the steeping tea, black with some sort of berry in it. The window near the electric kettle was obscured by steam: the other windows mirrored the room and Sebastian and Sophia standing in the room. He sat down on the backless cube of a chair. She poured him tea. He looked up to find her deep in thought, staring hard into his face. She caught herself and looked away.

"You must think I'm very strange," she said.

Sebastian stared into his tea. Miniature leaves floated, unfolding in the heat of the water. "Who isn't, these days?"

She was holding an envelope in her left hand. She placed the envelope on the table.

"First of all," she said, "please take a look at this."

Sebastian opened the unsealed envelope and drew out a photograph. It was a color photograph, very old. Its tones were shifting toward orange and red as it aged. The edges were yellowed, although it had been printed on supposedly archival paper. It had been badly bent a number of times, and creased once diagonally, then re-straightened. The two people in the photograph were wearing laughably out-of-fashion winter coats: coats that would have been normal now only in some sort of historical drama. They were grinning into the camera. The man was wearing a wool watch cap, the woman a beret. Behind them there were some very neat, tiny houses almost entirely obscured by snow. Judging by the architecture of the houses, the picture was taken somewhere in northern Europe. A very pale light. Very far north. The couple looked truly happy: their arms around one another, their heads leaned in to one another, the crown of the woman's head against the man's jaw.

It was a photograph of Sebastian and Sophia. Their hair was significantly different (his was just terrible, unflattering. What could he have been thinking? Hers looked nice). Their clothes of course were different, but there was no doubt at all that it was the two of them. He looked for a long time at the photo, turned it over and looked at its back. Nothing there but the digital printing from the machine—a series of numbers, some kind of internal code from wherever it had been printed, barely legible now. No date, but he could guess by the clothes that it was . . .

"The first thing you think. The first thing that comes to mind."

He looked up. She was leaning in a bit toward him, both of her hands wrapped around her mug of tea.

"Well . . . it's us. I mean . . . it appears to be a picture of you and me. But I don't . . ."

"No, you wouldn't remember it, Sebastian." She said his name strangely, like a person afraid to pronounce a word incorrectly that they had only read in books. "I don't remember it. I don't remember anything of it. It's . . ." She stood up suddenly and went to the window. "It's well beyond my memory horizon. I've researched the picture. Looked up the fashion of the clothes. Not . . . obsessively. Just—because I've always had it with me. I found it in my things, I think . . . I can't remember exactly. But this picture . . . which I've carried with me as long as I can remember . . . I think it's about four hundred or so years old. That's just a guess. It could be three hundred ninety and their—our—clothes are out of style, but it's probably closer to four hundred. I need to walk. Do you want to go for a walk? I can't be in here with you."

They walked along the river embankment. There was no ice yet on the river, but a serpent of freezing air coiled down its length, winding winter into the city. They crossed the river via an escalator and an enclosed pedestrian footbridge. Below, the black mirror of river reflected the city up at them. There were, of course, no stars.

"I don't know how long ago I found it. I have a vague recollection of pulling it out from the pages of a book. The book is battered"—she was walking with her eyes shut—"and it has a white cover. With only text on it. Like handwritten text. And green stripes? I remember green stripes. The book is gone now—I can't recall what I did with it, but it's been gone a long time. I've tried as hard as I could to remember the title of the book, and I can't."

She stopped walking and turned to him suddenly. "Tell me your oldest memory."

"Clear or muddled?"

"The oldest one you are sure is not a dream, but an actual memory."

"Okay . . ." In the distance, down a turn of the river, the sections of a residential skyscraper slowly rotated, changing which of its balconies had a view of the river below. "I'm standing on the deck of a ship. It's massive—almost the size of a city, and its deck is covered with stacked containers. You know the ones. Apartment containers, with catwalks and gantries between them. I've examined the feelings around this memory: I'm at the end, maybe, of a long period of being sad. I look at my hands. I'm holding pieces of something in them. But I can't see what it is, closely. Whatever it is, it's mostly white and orange. I can't identify it for the life of me—I've spent hours trying. I open my hands, and the stuff drifts out of them, is caught by the wind, and then falls down along the huge side of the ship and out of sight. And I remember feeling disappointed: I had wanted the drama of seeing it hit the water, but I could not see it. It just—went away under this enormous bulk. Gone."

"The next clear memory is months afterward, and after that they get clearer and clearer, of course. That one must have been very strong to have lasted for so long. I sort of keep retelling it to myself. To see if I can remember it. Forever . . ."

"It must have been one of those round-the-world container-home trips," she said. "I remember the ads: 'Travel around the world for five years, all in the comfort of your own home.' The whole idea was a bit unwieldy, a lot of diesel fumes and seedy ports, but people signed up who had the time and the tenghe. They were popular for a long time. Until one of those liners went down in the Atlantic, remember?"

"Fifty years ago."

"Sixty, I think."

"It could easily be. I keep so little track, these days." They were on the down escalator, across the river now. Outside, cobblestones and cold. The entire center of the city had been restored to the way it was hundreds and hundreds of years before anyone could possibly remember—even the professional mnemosynes. He liked that about it: it was why he lived here: and also why, he imagined, Sophia lived here. Their gloved hands bumped against one another as Sophia changed direction, leading them up a narrow side street. There were bicycle stations everywhere, of course: no cars allowed within two hundred fifty blocks of here. His own bicycle was at a station not so far away. They were within walking distance of his place. He blew through the fabric of his gloves. Time to switch from the fall to the winter pair. He felt a sense of dread opening in him, and he wanted to be away from Sophia and home among his SAE texts, pushing himself through another hour of studying, closed off in that little, specific world. She put a hand on his shoulder as she turned, stopping him, blocking the sidewalk in front of him.

"I'm not a superstitious person, you know." A gust came off the river and hissed evilly through the dry-leafed trees. They both laughed. "No matter how hard the world tries to make me one. I don't think I believe in fate or anything else. But I want to say a few things. Can I?"

He blinked. "Why wouldn't you be able to?"

"Right. What I want to say is: my oldest memory is of finding that picture. And they say—all the books say—that the memories that survive for the longest are the ones



that are somehow important. Some even say, the ones that carry some sort of a key inside them to something else. I don't know if it's true—but it makes sense that you remember the more important things for longer. That's one." She counted it on her glove.

"Two is—we look really happy in that picture, in a way that I know I haven't felt for as long as I can remember. Which is a long time. And I'm not saying that I haven't been happy . . . but not like that picture. Nothing like that. Those people . . . we . . . were happy.

"Three is—I've kept the picture, but I haven't been looking for you. Maybe keeping an eye out, half-consciously, but how would I ever find this person in a photo I couldn't remember taking? Hire a detective? So I just kept it. I was maybe hoping. But not . . . looking. And the picture was taken a long way from here and a long time ago. And the fact that I went into that café—because it was raining, only because it was raining—and saw you there—not looking for you—makes me feel—although I'm pretty terrified of you—that this seems right."

Standing still was pushing the cold all the way up his thighs. It would be time to switch to long underwear again, as well. "It does. It seems right."

She started backing up the street. "Okay. Go home, it's cold. I'll see you tomorrow." He just stood there for a while, after the shadows under the furthest trees had drowned her shape. She was not walking toward her apartment, but farther away from it—he wondered how much farther. He turned left and went down the embankment, turning details over in his mind and trying to remember things. Did he remember her? Now that he had seen the picture, it seemed as if he did, but he knew the way these false memories could be constructed by the mind: you would remember a moment, but in the memory, you would be looking into your own face, or looking down at yourself from above—which meant it couldn't possibly be real. And they said that every time you remembered something, you subtly changed the memory to suit the present moment. He had no independent recollection of her. A hoax? There were memory con artists, some of them incredibly skilled; whole volumes had been written on them.

But he felt sure that Sophia was exactly who she seemed to be. It was a stubborn, ignorant sureness, but it was all he had. He walked a long way down the cold, concrete embankment, very much aware of his fragile, warm form along the riverbank.

At five in the morning he clambered clumsily out of bed in the dark. He was sweating. He must have been dreaming, but the dream was gone, only the impulse remained. He searched desperately in the dark, not even thinking to turn on the light. It was here, somewhere. . . .

Today it was Opponent Three, the little girl. Sebastian was earlier than usual: after waking up at five, he had not been able to sleep. Finally, at seven or so—much earlier than he usually got up, these days—he forced himself into the shower tube, then flung on the old shooting jacket, took his bag, and went out for breakfast to a little Greek place on the corner. For some reason he did not want to go to the café yet. The book on SAE theory was a blur; he kept reading broken bits of sentences, backtracking over whole pages, closing the book and staring out into the quiet, early street. Finally he just got up, leaving the breakfast half finished, and went to the café to wait. It was not a morning café; not the kind of place that people came to for a quick cup of coffee before work, but more the kind of place people just—came to. There was just a smattering of customers reading their terminals, and the owner at the far corner of the bar, playing chess with the serious little girl. At first, Sebastian would be quiet. He would let Sophia talk first—get whatever it was out of her system. Then he would show her. And then what? He couldn't know. For the first time in a very long time, he

was frightened of making a mistake, and he realized that there was something in him, some capacity, like a forgotten function, like an unused piece of programming.

Outside, it started to rain. Not a normal autumn rain, or an early winter rain—but a rain of surprising force. Wind came hammering down the street and awnings flapped, then hail rattled and smacked against the windows. The little girl looked up from the chess game with a look on her face of joy and wonder at the horrible weather—Sebastian’s reaction too, normally. But now the storm threw him into a panic as the rain mixed with sleet, then snow, then freezing rain, and shellacked the windows with distorting ice. Everyone looked around. Customers ordered second cups of coffee. Nobody was worried yet, but nobody was going anywhere. In books in the old days he knew that this was about the time that the power would go out, candles would be brought around, and they would begin to tell stories to one another, or some such thing. The beginning of a one-act play. Of course, the last time there had been a power outage in the city was well beyond anyone’s memory horizon. Still, a few people did look up at one another, acknowledging for the first time that other humans were also in this room. A banner across his terminal announced a temporary reduction of NEM service. The city was in the midst of a major ice storm.

Within two hours, much of the storm had passed, without real damage done to anything. The streets were mechanically cleared thirty minutes after that, and the city returned to its normal, subdued level of activity—but Sophia did not come. Sebastian went home in the dark, up streets forested with icicles. It occurred to him that poems, like eucalyptus trees, poisoned the ground beneath them. Eventually, there would be no soil left where anything new could grow. Eventually, there would be no writing about human feeling left to be done at all—only reading.

There was an Opponent Four. This was something new. Sebastian had come in very early. He dropped into his usual place and ordered a macaroon and a Japanese coffee. How long had the place been a café? Longer, possibly, than he had been alive, which was a very long time. He had moved so long from one obsession to another. Now he thought that, underneath all that concentration—all the papers for peer-reviewed journals, all the attention to syntax and SAE peculiarities and dialectical variations—all the careful research, decades of it—was something else. Some sort of breadcrumb trail he hadn’t even been aware of following, leading off into the darkness. In the meantime he had been analyzing, in excruciating detail, the symbolism in the presentation of the contents of a medicine cabinet, the details of a young man shaving in the mid-twentieth century, the typology of Manhattan apartments, haiku in SAE translation, Western appropriations and reinterpretations of Buddhist thought, twentieth century traditions of suicide . . . Simply to justify his existence, he had thought, when he no longer had to work for money because some version of himself that he could not remember had done all the work for him. Only now did he realize what it was he had really been doing.

A bicycle went past, a manual type, as mandated by city ordinance, making a pleasant, nostalgic clatter over the cobbled street. Opponent Four was a woman in a nurse’s uniform, but without her hat on, and in regular walking shoes. Just off a night shift? She was standing, bent over the board. A sky-blue wool coat was thrown over a barstool next to her, as if she had just swept in off the street and didn’t intend to stay long. “. . . and . . . *mate*,” she said, clapping her hands together.

“You’re good,” said the owner.

“Well,” said Opponent Four, “I’ve been playing for as long as I can remember.”

The owner rubbed his shaved head. “So have I. A lot of good it’s done me.”

The nurse put her jacket on and turned. Seeing Sebastian in his usual place in the corner, she walked over.

"You're Sebastian."

"Yes," he said, swallowing macaroon. "Yes. Do I know you?"

"Sophia asked me to stop in here and tell you she's in the hospital. Central District Hospital #2, just up the street. She slipped on the ice yesterday, broke her elbow very badly. Surgery's tomorrow. Glad I caught you in time." She turned and walked out.

Sophia looked like she was being eaten, right arm first, by a white, ovoid machine. The machine was suspended over the bed at the end of a multi-jointed armature. A slight green glow spilled from it and across the side of Sophia's face.

"Latest of the latest," Sophia said. "Same technology they use in limb regrowth—it's supposed to shorten healing time by about 95 percent—I should have full mobility in four days. You brought flowers, which is incredibly antique of you. This thing feels weird."

He sat on the chair next to the bed. "You have surgery tomorrow?"

She frowned. "No, just more of this. Is that what they told you?"

"The nurse told me."

"That woman has a very strange sense of humor."

"What does it feel like?"

"It feels like . . . ants crawling up and down the bones of my arm and massing at my elbow. Crawling through the marrow of my bones. But it doesn't hurt—it tickles. Very strange. Very unpleasant, without being painful. I'd rather not experience it again. This is all very dramatic—ice storms and broken limbs and messengers."

"And strange requests in anterooms, and photographs."

She smiled. "My hair is greasy, and I've done nothing with my life for about the last hundred years except diddle around on the violin and pretend to write a book on Freud. I can't even be bothered to learn German. So . . . embarrassing."

"Possibly of more use than what I have been up to."

"Which is?"

"An obsession. I've built a minor career around it. In fact, I might be, because of it, the world's foremost expert on Specific American Englishes of the Period 1950–1964, especially those related to the works of one author."

"Okay, that rivals my idiotic Freud project. Why?"

"I came across a translation of a book. Maybe it was sixty years ago now. I wasn't living here at the time, but out East at a cataloguing dig. One of the abandoned cities. Another archaeologist loaned me this old book he had—this was just at the time when the fad for paper books was coming back around. I read it, and read it again, and again. I felt drawn to it. And I couldn't really understand it: the sentences seemed tangled. The book seemed to be about nothing at all, or about something that I couldn't possibly grasp. But these little glowing pieces that I did understand—they fascinated me. I was sure that it was the translation getting in the way. So I decided I would learn to read it in the original."

"Why?"

"I wouldn't have been able to tell you. I thought at the time that it was because I desperately needed something to do. This thing was as good as any other thing. But it's what I've done now for decades. I've studied this very particular, dead version of English. It isn't really that different from the kind they speak nowadays—maybe half the words are the same, maybe more. The grammar has changed, of course. Mostly, the challenge lies in understanding the world they lived in, which is so different from ours. Their world is so shadowed by inevitabilities, especially the inevitability of death, which covers everything. And of course everything moves so urgently. Everything is so compressed. Yet they waste time with a terrible determination, as well. I knew at least a little modern English, so that was a start. After a

few years, I began to forget exactly why I had started the project. I'd become fascinated with all of the little details along the way. Complex, endless little problems. And I started to publish in the field, after a while. Then it became about that—about the academic side of it. The very fine distinctions.

"Several years ago, I was digging around in one of the little antique shops here in the city center, and I came across a paperback copy of the book. The same one that had gotten me started. In decent condition—and you know how rare they are these days, though they were very common at the time. It wasn't a first edition or anything, but it was of the period, in the original language, and it was in decent shape. I honestly thought I would never find one. Before that, I had always worked from my terminal on electronic texts.

"I was so happy—I remember being happier than I had been about anything in—well, in a very long time. I walked down to the park and I read it—in the original—cover to cover. It was dark when I finished. I remember that I sat there, for it seemed like hours afterwards, trying to hold on to this—mode—that I had slipped into. A particular shape of the world, a tone to things. Like when someone says 'it struck a chord' in me. That must be the rough, dead metaphor for this feeling—but it's nothing like the thing itself."

He looked at Sophia. She was staring back at him. The machine on her arm bleeped. She turned her head and scowled at it. "Oh, shut up, machine. What do you know?" She turned back to Sebastian. "Keep talking, you."

"It had taken me fifty-three years to get to that point, where I could read it like that—understand every word, know their world almost as if I had lived in it. I felt like it had all been worth it. And I felt as if I had been following some kind of trail into the dark. I had been following that trail for so long that I had forgotten what I was doing. I had begun to think that I was just walking aimlessly. And then I had come across something that I was looking for. It didn't feel like the end, the final thing. But it was like . . . a waypoint.

"Then that night, after we talked . . . I didn't realize it right away . . ."

He reached into his bag and withdrew a paperback book. It was crumpled, curved off spine, and fragile-looking, packaged carefully in a sleeve of clear plastic. There was, unusually, no illustration on the white paper of the cover—only the book's title and the author's name, printed to look as if they had been hand-written with a fountain pen, and a pair of green stripes bisecting the cover, about three-quarters of the way down its white surface.

He put it in her good hand. "This," he said. "I didn't realize this. It's the thing that I've been studying for all these years. You see? The trail that led off into the dark. The SAE English, the haiku, the contents of a medicine cabinet . . . they all lead here, to a silly little book that shouldn't have had any meaning for me at all."

She held the little book in her hand, moving her hand slightly up and down, as if testing the weight of the thing. She turned it over. The back cover was the same as the front cover, except for a bar code near the bottom—the sort of thing not seen on a book for three hundred years, at least. The lower corner of the back cover was torn.

"I feel like I've seen it before."

"You have," he said. "It's the book you took our picture from. You described it to me. In your apartment. A white cover. Only text on it. Handwritten text. And green stripes. It's the book you put on a shelf once in a little bookstore, meaning to forget it."

She set the book down on the bed sheet. Then picked it up again. Then put it down, adjusted it a bit. "Yes. This is it." She shook her head, closed her eyes for a second. Opened them again. "This is it."

It was an almost perfect café. It was in a red brick building that turned burgundy in the rain, when the rain streamed down its onion domes and its stained glass.

Through the archway of chipped grapevines, under the dome of the main room, stood the old, mirrored bar with its bottles gathering dust and the silvered mirrors growing darker every year.

The bar was where the owner was always to be found, rubbing his shaved head, staring at a game of chess. He always played against one of three different opponents. Opponent One was a nurse who stopped by in her uniform around lunchtime. She played quickly, and when she won—as she nearly always did—she clapped her hands together, said “Ha!” and walked out. Opponent Two was a woman with a nose she had never quite grown into and blonde hair like ashes. She would finish the game and, win or lose, sink her pointed face into a book, sipping her coffee in silence. Opponent Three was Sebastian. He played slowly and carefully, with a sort of desperate concentration. After three decades he still had not won a game.

The rest of the room was a shifting dance of tables, chairs, and light. The chairs and tables were never in quite the same configuration when Sebastian came in. He suspected that, after the café closed, the owner moved them around, just for the sake of moving them. The light was never the same either: it fell through the stained glass in a moody shift, dependent on cloud and season.

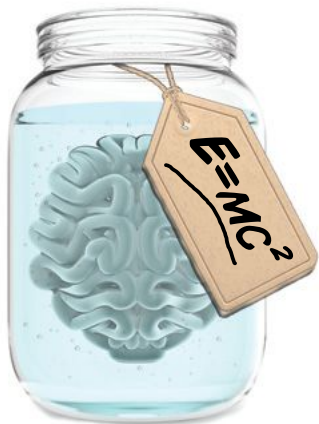
But what made it nearly perfect was the place in the corner, against the wall furthest from the entrance, by the windows. Here there was an enormous, purple-velvet armchair, a battered wicker high-backed chair, and a massive oak table. When he lost, as he always did, Sebastian would cross the room, shaking his head, and settle into the armchair. Sophia would look up at him from her terminal and sigh.

“One day, you’ll give up.”

“One day, I’ll win.”

And so the café had the feeling, at once, of agelessness—its ancient building, its collection of rescued furniture, its continual game of chess in the corner—and of change: the patterns of color-stained light and the dance of tables and chairs. All this, and the macaroons were excellent. All this, and the service was good. ○

## 1,230 Grams of Einstein



First in a jar of murky fluid  
The physicist's brain was  
Not of particularly notable  
Weight or size as things go except  
For the corpus callosum and certain  
Cortices perhaps extraordinary  
Famously hoarded by Dr. Harvey  
Sliced and portioned often  
Once on a kitchen cutting board  
It traveled the states including  
That road trip to the west coast  
In the trunk of a Buick Skylark

Not able to be quantified or sampled:  
Its true capacity for the mysterious  
—Robert Frazier

# THE MUSES OF SHUYEDAN-18

Indrapramit Das

**Indrapramit Das is a writer from Kolkata, India, who can be followed @IndrapramitDas. He's sold fiction to *Asimov's*, *Tor.com*, *Clarkesworld*, *Strange Horizons*, and *The Year's Best Science Fiction*, among others. Indrapramit is an Octavia E. Butler Scholar, and a grateful graduate of Clarion West 2012 and the University of British Columbia's MFA program. His debut novel *The Devourers* will be out soon from Penguin Books India. His latest story takes us to a distant planet where humans seem no better at understanding each other than they are at comprehending an alien lifeform.**

**S**huyedan emerged from its progenitor calling to the stars in agony. Its cries rolled across the plain, a bass hum in our suits. We called it Shuyedan the moment it began to depart its progenitor. Mi, standing next to me, said the word, her eyes visible even behind the glare of sunset on her faceplate. In Colbyat, Shuyedan means *youngest*. We didn't know the aliens' language, if they have one. Its lowing was as alien to us as the way it separated from its progenitor. It wasn't birth, it was a battle, full of lust and fury and what we might call blood, misting the air and falling upon us in a drizzle that glimmered on our faceplates as we watched. Strings of dark tissue stretched between the aliens like a cat's cradle, scythes of cartilage emerging to snap them off. Steaming in the red light, Shuyedan pulled away and lay across the loamy ground, ultraviolet reflections storming across its fresh skin like lightning. A giant twisting to articulate itself, groaning to life. Its progenitor gasped flickering blood and shuddered away, its part done. It was larger even than Shuyedan, a tower unfolding to cast its shadow across Mi and I. I heard Mi's breath catch in the mouthpiece, a crackle that lingered in my chest.

It's hard to describe these creatures without language that grew on this world. There are words in Colbyat that do not translate well; aynagal, which can mean *thoughtpalace*, or vitanbiyet, which can mean *lifecastle*. Piyentour, the very earthly sounding term *dreamweaver*. In Colbyat, they share the gender-neutral pronoun used for humans, which makes them sound less like objects to be surveyed and more like sentient life forms. These are beings of poetry, despite their vast solidity, eclipsing the largest of Earth's animals.

But at that point, Shuyedan, youngest we have seen here, was a blank slate. Its progenitor receded into the horizon groaning, a swaying exoskeletal rook, its skin statuesque with the stories of its life, incomprehensible to us. In that, they were like walking Rorschach blots. We called that one Urdhema, *imperial*, because we had

seen it war and defeat two others. Its mindcarvings, all crumbling creches and curling crenellations, snagged the setting glare of the dwarf sun. It was a walking monument, a castle, a defender of its own space. What we might call its child was now a rival nation.

This was the first time Mi had seen a lifecastle create another. They were all unique, and incredibly solitary. The only time they touched each other was in battle and birth.

"Fuck me, that's beautiful," I said to Mi, because it was, and because seeing it anew with her eyes made it as strange as the first time I'd seen a separation. Her channel was open, the reverb of my own voice in her helmet a soothing echo.

"So are you," she said. So banal, yet striking in her timing. Shuyedan stood up, obsidian giant rippling. Urdhema was rapid despite its size, already getting small on the horizon. It was limping from its painful act of creation, but anxious to get away from the result. Its pennants unfurled behind it, fluttering on the breeze, membranes absorbing the blue starshine that was growing stronger as the sun lowered.

"Stop," I told Mi. "How can you talk about me when that just happened? Look. Just look at that. Shuyedan."

"I know. I'm looking. It makes me feel like the luckiest person in the galaxy. To have you, here, now, and have Shuyedan witness us. We're . . . we're blessed, Tani," Mi said.

Shuyedan's windows flickered open, steam curling out of them lit yellow by bioluminescence. It beheld—us. We switched on our own headlamps, which burned through the progressing evening in straight lines.

"There are five hundred thousand human beings across the Universe, observing other life forms or worlds as strange as this one. Or more, fuck knows. Don't be so absurdly romantic," I said, exhilarated by Mi's happiness even as I reacted against it.

Behind the veil of reflections on her faceplate, her lips parted. "Do you have to swear so much?" A smile behind her words. "Shit," she said, and stumbled back as Shuyedan's entire body shook and it sounded again, louder than before. Our external mics squealed.

And just like that, Shuyedan's skin churned. It witnessed us. First sight; ankhalayan. High above us, part of it transformed, and in the light of its smoldering windows, we saw two wet shapes of bulbous, space-suited human beings rise out of its dark epidermis. Its first carving. It might well be drowned out later by further accretions, but it was the first.

Mi laughed. The volume was too high, turning it into a hiss in my earpiece. Music, yet, to my ears.

That night, the arch of the galaxy a viridian river above us, we had sex in our camp-tent with the nanoweave tuned transparent. It was always a thrill to be naked in that blister of breathable air, our bodies cool and damp as we pushed against each other in the sub-Earth grav. But Shuyedan's bulk looming nearby only strengthened our intimacy. Outside, an atmosphere that would kill us in ten minutes at the most. Inside, we were safe, tethered to ourselves. It felt like a miracle to be so unclad, so bare, our nipples and navels and pubic hair and genitals exposed for all this distant world to see, for this alien to observe and interpret. We were alive, unnaturally so. Homeworld an invisibility in the sky.

On the horizon the closest thing we have to Earth; the lights of Teysanzi Protectorate embedded in the hills.

We left the field-lamps on beside us so our bodies glowed fierce blue on that dark plain. Shuyedan watched, its sounding a vibration across the tent. A lifecastle blooming. I felt in that moment like I was living myth; a stunning and meaningless myth in the cool churn of that recycled bubble of human atmosphere, saturated with our

floating DNA. I swear I was so giddy I could have hurt Mi then, her mouth on mine, her tongue between my teeth. God, she worshipped me, her long black hair unwrapped, no longer bound in the helmet of a surface-suit. Rivers silking across my torso, clinging to the damp on my breasts, which she kissed with such ridiculous passion. Mi would insist on their perfection with such sincerity it sometimes irritated me. Right then, I didn't care, as she ran her hands over them, fingers wet with spit. Her shoulder blades lit by a flaming galaxy as they writhed under her skin, written with pores and the small flecks of moles and freckles.

Shuyedan carved our sex into its skin, its windows spewing heat into the night.

At crimson dawn, the ground woke us with its rumbling, Shuyedan churning up soil with its scything belly and venting it from cracks in its shifting carapace. It was eating. There were kilunpa in it already, populating its shifting skin and swarming it, gathering ikan from its steaming windows. Months later, when the ikan ripened into something more pungent and powerful, the kilunpa would carry fragments from other lifecastles and fertilize Shuyedan's skin, so it too would create anew, do battle to separate a new wandering fortress to populate the world. The kilunpa's crystalline wings batted sun into our eyes. Mi and I unwrapped ourselves from the tangled blankets, sticky with sleep.

"I can't believe it stayed near us all night," I said, squinting against sunrise.

"We made something of an impression," said Mi, voice soft to suit the early hour. "Those carvings are exceptionally detailed."

We could see the sinuous new spine of human forms entangled along Shuyedan's side. Etched into shadowy relief by the light of sunrise. Its mindcarvings reminded me of the erotic sculptures that adorn the sandstone walls of the Konark Sun Temple on Earth. I had visited Konark once, barely out of my teens, with a boyfriend who seems so distant now I can remember nothing of his appearance except for the dimples on his earlobes where he sometimes wore silly studs. In the damp coastal fog of Orissa winter I'd watched stone men and women fuck in their alcoves while swallows shat on their shoulders, and I'd felt the hands of those long-dead sculptors and sun-devotees on my back, pushing against the membrane of time and history, even as men of that present-day Earth leered at me as if I were stripping just because my hair was down and my tank top comfortable.

"Which one's you?" Mi asked me. She put on her underwear, squinting through the transparent tent at Shuyedan lit by sunrise. I looked at the way her hair clung to the side of her face, strands following the temporary scars of pillow marks.

"You can't tell. It's just woman, and woman," I said. The tent buzzed with vibrations from Shuyedan's feeding.

"You speak to me like a child," Mi said, kicking into the legs of her surface suit. "If you had to *choose*, which one?"

I breathed in deep, wanting only to shut her out. "I don't know. Going by its mindcarvings, to Shuyedan we're one thought. And we're seeing that thought."

"That's a lovely notion. Maybe you're more romantic than you know," Mi said under her breath.

"Well, I don't see us as one thought. Shuyedan does. That's fascinating to me, not romantic."

She stared at me, then. In her sullen amazement I found her painfully attractive, and I was sorry to have hurt her. She zipped up her suit. "Wow. Forgive me for indulging in a little hyperbole."

A laugh disappeared in me. "Come on," I said, reaching over. I ran my fingernails over her cheek, freeing the clinging hairs from her face. The creases on her cheek fading. "I don't understand you sometimes. Can you not see where we are?"



"Yeah. I don't understand myself either," she said, probing her front teeth with her tongue. "Maybe we shouldn't have let Shuyedan witness us," she said, after a pause. "What's this now?"

"We're on it, for god's sake. We're on its skin, being, being intimate. If another surveyor sees it, they'll know that two women are having sex out here."

I frowned. "All the more reason for the witnessing. If I don't want to bear a child for the settlement, that's my right. Most exoprotos hashed this shit out ages ago. Where the hell are we, Earth?"

Mi shook her head, turning away. "You always talk about Earth like it's one country. You shouldn't. It's homeworld. All exoprot culture came from there," she said, warm in the flushed light of morning. I rolled my eyes, making sure she didn't see it. As if I hadn't grown up on Earth, same as her. She continued to look out at Shuyedan, bending down to press her palm against the floor of the tent, feeling the vibrations of the creature's feeding.

"We allowed a lifecastle to see human sex," she said. "No one's done that. Right?"

I shrugged. "I haven't seen any signs before."

"And we just did, just like that. That's history. Isn't it?"

I started to say something, anything to knock down that statement. But I didn't, or couldn't.

I touched her teeth with the tip of my thumb, and kissed her. She kept her mouth closed against it. I wiped her lips.

"Let's go take a closer look," I said.

Teysanzi means *new life*, or *beyond-life*. Not quite afterlife, because of the connotations with death. I was thirty when I arrived at the Protectorate, and forty-two when I met Mi, new like I was but younger and still *nan tizan*, "blue-eyed" with memories of Earth. But she was quicker than me to adjust, more confident. Nothing would get her down. Not even the sunless tiled skies and tunnels of Teysanzi, sub-city, metropolony, Earth-Protectorate. I took her to the food court district, with its cheap neon and sun-lamps battered with imported moths, its greenhouse stalls warm and rich with the smell of plants and vegetables and flowers snarling their way along the tables. She had taken it all in with a smile. The hot lights reflecting on her nose, which looked so like a button mushroom (I would tell her so weeks later, much to her false chagrin). I helped her with the chopsticks, her muscles still loose and hands shaking from jumping through spacetime while waking in and out of cryo-phase. From that moment watching her suck noodles into her mouth I knew I couldn't resist the inexorable tug of affection I had avoided for so long. I knew from the way she stared at me, blissful in trust, that she saw me, strong and grown into the scrubbed air and strange gravity of a new world, as somehow powerful. I fed on her awe in vampiric resignation. Quietly let her recite what she'd learned of this world back on Earth, as if to imprint her new reality with those predefined definitions, watched her explain to herself how Teysanzi cuisine was so spicy because the sub-city's processed atmosphere and low-g made for chronic swollen sinuses and dulled taste. She licked that same spice off her lips and left it on scrunched napkins by her tray. Mi talked in Colbyat often, to practice, though I think she was actually better at the formal language than I was. Still, I taught her Colbyat slang and swear-words she didn't know, as one will do, told her how it and other star-tongues gestated in the confined cultures of starships, q-tunneling waystations, eventually exoprotos.

A week after her arrival, we took the buggy out to the hinterlands to start her apprenticeship. Starlight in the puddled loam sinking under our boots, she asked me, "Do you agree with the sanctions against non-het couples here?" The formality of her

constant questions, as if she were continually interviewing me, still delighted me at the time.

"No," I'd said. "Why?"

"Well. What if our Krasnikov tunnel collapses and we're cut off from the rest of the protectorate net, from Earth. That's what the Teysanzi's afraid of, right?"

I laughed. "Teysanzi's population isn't even three thousand. I think if the Krasnikov collapses and we're stuck out here a hundred light years from the nearest tunnel gate or settled planet, being het and having babies isn't going to save our asses. Being resourceful will. Or more realistically, nothing will."

"Yeah?" her voice loud against her helmet mic. A smile behind glass, and butterflies in my stomach. "And how're we going to be resourceful? Build a mega-generation-ship to haul our descendants to the next gas station? Or should I say gas giant," Mi asked, touching my arm lightly with her gloved hand. Her giddy inflection made me light-headed. There was a tremendous energy to her out here, much more than in the sub-city. So confident, for someone on their first trip to the hinterlands, suited up. Maybe it was adrenaline.

"Woman of ideas over here," I said. "First, terrible pun. Second, genship endurance is still a het dependent plan. Maybe we can hack cryo-phase, just sleep for thousands of years on your ship, become space-vampires. The breeders can keep breeding."

"Mmm-hm. It's not my ship. You're the resourceful one. I'd just give up, wum," she said.

"Right. Anyway, this het-normative obsession isn't going to last. It's just us cycling through civ states, spinning the wheels, going back in time before we go forward. No matter how much we grow, even if we build new cities, there's an upper limit to how fast we can expand our population without breathable atmo. Until we can augment our bodies to breathe it. Population booming is just a short term panic response to the thought of our Krasnikov closing."

Mi thought about this for a little while, stepping over a tar-black puddle carefully.

"Maybe it'll be good if the tunnel collapses. Maybe an actual apocalypse would turn Teysanzi into a utopia because we wouldn't worry about anything. I mean, ultimately, who cares, right? There's plenty of other humans out there on other worlds, and we're all gonna die whether or not there's another generation to keep the lights on here. If the Krasnikov goes, we could actually *live* like no one else ever has, if we know it's the end. We'd all just make love, be friends, raise the kids here to become new decadents, make art for rescue ships to find centuries later. We'd sip champagne in the ruins of dead lifecastles till there was just one of us left."

"God. A punner and a poet," I said.

Mi laughed, much louder than my response deserved.

"So. Are you planning on having a child to bolster our chances against extinction?" I asked, casual as I could be. Probably not at all casual. When we'd toured the school-commune district, she'd been a natural with the children there, completely at ease (very unlike me).

"No," she said.

I nodded. A few paces ahead of us, a sankipyo looped out of a puddle in a glistening flash and wormed across the ground, frilled legs twirling behind it like wind ornaments. Mi squealed in delight.

"Oh, Tani. Is that—" she whispered. I realized one of the hills in the distance was shifting, moving. I nodded, though I don't know if she could tell through the helmet. Her first sighting of vitanbiyet. I had other things on my mind. The lifecastle didn't come anywhere near us, but it was good enough for her, for a first trip. We watched it for about ten minutes, its windows opening and closing, glittering sharp in the distance. Their luminescence made the vitanbiyet look uncannily like a building on the

horizon. An old castle on Earth, maybe, swaying in an earthquake, its windows aglow with candlelight and electricity, chandeliers tilting, tinkling.

When we got back to the buggy and sealed all doors, I helped her out of her helmet. The faceplate misted as I freed her face from beneath it. Her eyes were wide, forehead sweaty under the dim blue cabin lights. There's no excitement like seeing alien life for the first time. She helped me out of my helmet, too. I think her hands were shaking. She took a long time undoing the clasps. She was laughing, just laughing. No words.

The moment the helmet was off, I kissed her. The metal rims of our suit collars clashed loudly, but she grabbed the back of my head with her hands and helped me forward, pulling my mouth to hers.

Five weeks later, Mi witnessed her first separation of a new lifecastle. We tagged it, and named it Vitanbiyet Shuyedan.

I felt flushed out there, in my helmet. Oddly clumsy and unprepared.

"You ready for this?" I asked Mi. "We can just follow protocol, use the marker gun if you don't feel up to doing this." What we were about to do wasn't recommended, but I knew that surveyors did it all the time with new apprentices as a bonding ritual. More like asserting to their apprentices that they were badasses.

"I'm ready," she said, voice flat.

She knew by my tone it had been a challenge, even if I barely realized it myself.

Shuyedan was a hundred feet away, settled in repose. Kilunpa settled all over its carapace, their wings like fluttering leaves, making the vitanbiyet look like a giant tree in the breeze. Its windows would flicker sometimes under their bodies like lanterns strung from boughs. In two months, its pennants would grow out, unfurl to signal the ripening of its ikan.

"What'll they do to us if they find us manipulating the lifecastles? We're just supposed to tag them, aren't we?" Mi asked, finally.

"We didn't manipulate shit. They see what they see. Us having sex just happened to be what this one saw. Nothing wrong with that. Hit it."

"Now?"

"Yes, now. Throw it as far as you can."

Mi turned, took the silver orb of the sounding beacon from her belt, and thumbed it on. The red light on it flickered. She hurled it like a grenade. Her grunt small, bringing a smile to my face. I saw breath on her faceplate. The beacon landed not too far from Shuyedan. We saw the light turn green.

"Let's go," I said. Mi followed. We strode toward Shuyedan, our bootprints deep in the dark mud. The sun had risen now above the mountain crests and the blinking transmission towers of Teysanzi. It was full daylight, but here some stars are visible at high noon.

The kilunpa burst from Shuyedan's back in a flurry of wings, swarming into the sky. I remembered swallows again, and ducks, on Earth. We saw Shuyedan's mind-carvings unveiled once more, our replicated forms drying into something less smooth than the previous night. It rose, roused by the silent frequency of the beacon, its legs unfolding. I heard the huff of my breath within the helmet, the huff of Mi's breath in the mics. The barbed black fronds of sikri-grass whipped at our legs as we ran. When we were in Shuyedan's shadow, I stopped. Two stories high it groaned and swayed, folding its legs again as it looked over the beacon. Its carapace tumbled serpentine shapes that solidified around the naked women on its back, but nothing recognizable formed. I aimed the grappling gun, lining the sights up right below the spine of human shapes. I pulled the trigger. The gun jerked in my arms, and I felt the satisfying second tug of the hook snagging in the carapace.

Mi was at my side quick, and I approved. She fired her own grappling gun. Her shot hit two feet below mine. Good enough. "Nice shot," I allowed. I couldn't see her face. We clambered up the vitanbiyet like insects, first up one of the limbs, and then on to the carapace. Its windows flicked open and closed by our boots, which trailed sticky threads of unripe ikan. The glow of its windows lit our surface-suits yellow in shuttering intervals. I kept a tight grip on the gun as I clambered up, reeling the chord back in and looking back every five seconds to make sure that Mi was all right. She was using her legs more than her arms, breathing heavily into her mic. But she was doing fine.

"Good girl," I whispered.

Our entire bodies hummed as Shuyedan sounded and stood up straight, the beacon no longer of interest. It could see us with its windows, but didn't care now that we were on it. It was the approach that might have made it defensive, but now we were indistinguishable from kilunpa in its vision. Unless we hurt it or drew its attention too much. So far, no human has died from climbing on vitanbiyet, but we've seen the immense violence they're capable of when fighting each other.

We used its swaying gait to land our steps rhythmically against its side.

Under our ikan-smearred soles, the carapace-stone of the lifecastle was almost glassy smooth because it was so fresh. The new presence of kilunpa colonizing it had prompted new carvings along the skin like ornate tracery, arching across the windows in a way the human brain will remind of our own architectures from across history. The skin would become more granular as it aged. Our footsteps along its steep side left flickers of ultraviolet that faded, like phosphenes on its dark surface. Stray kilunpa thumped against our suits, too light for us to feel them. Mi did gasp when one bounced off her faceplate before retreating into a blinking window to lap at the ikan. When I finally reached the mindcarvings of Mi and me, I switched on my headlamp. My arms ached, and sweat collected in itchy trickles under the fabric lining inside the helmet.

I swept the light over the carvings.

The figures were simple but striking, almost life-sized but voluptuous in their exaggerations of human contours. Konark. The two humanoids started off with the round heads and thick limbs of suited and helmeted surveyors, simplistic shapes, then melded together in a melted abstraction that might have been a representation of our camp-tent, or mountains. Then they emerged again to form a chain of entwined bodies, distinctly naked and in the various embraces of sex, sometimes melding into the stratum underneath them. From surveyors to humans, object to animal. Mi and Tani. I could see the grooves where buttocks met, the curve of hips, even the small bumps of nipples on breasts and the dimpled patterns of faces; eyes and noses and lips.

"I'm. Obviously. The taller one," I said between deep breaths.

My headlamp's light reflected off the placid faces of our alien likenesses and their ecstasy, glossing off Mi's faceplate. She took a pen-sized marker dart from her belt and stabbed it into the carapace. Characters glowed in my helmet feed as info-panels blossomed in my field of vision. In a low-detail map overlay, a new red dot appeared. Shuyedan-18 was tagged.

"How many lovers have you brought here to be witnessed by lifecastles? Is that one of your old tricks?" asked Mi in the tent, serious under her teasing tone. I took a sip of black tea from my thermos, the taste of leaves grown under Teysanzi sunlamps having long overtaken my memories of what tea had tasted like on Earth.

"You're the first," I told her.

"I don't mean the sex. I mean just being witnessed."

"You're the first," I repeated.

"You're lying."

"I was always a loner, Mi. You've no idea."

"You're saying you always came out to the hinterlands alone?" she asked

"Yes. I specifically asked. Hence, loner."

"Oh come on."

"Hope to die. I was cohabiting on Earth, you know. With a gentle, kind darling of a woman. I left her to come here. She didn't want to go to space. Very idea terrified her. So I chose. It hurt like a bitch. Never again. I do actually come out here to survey the hinterlands, tag and observe the lifecastles, all that, not just carve our initials on them like schoolchildren in a playground."

"Never again. Huh," Mi breathed.

"Well. Except you. Until you," I smiled.

Mi placed her hand on my cheek. "Why did you leave the love of your life, leave Earth?" she asked.

"Because I don't just think of love. Because I read and watched movies and fantasized about space travel since I was little. Because, I think, the Universe is my god, and I want to explore its insides. Because there are aliens here that grow statues on their backs, and I can try and understand them."

"Okay."

"I didn't mean to sound snappy."

"You didn't. You sound, well. You don't like to be called romantic. But there's something to being alone, isn't there."

"Why did *you* leave Earth?"

"Not because I'm a loner, that's for sure," she said.

I breathed in and out, not saying anything. She continued.

"In fact, I've never been lonelier than on the journey here, slipping through the Krasnikov in that ship. I regretted leaving my parents and family behind, hated myself. I felt like the Universe was crushing us in that ship. That we were so, so tiny. But once we got here," she paused, touched her eyelids. "I've never felt *less* alone, even with just two thousand five hundred humans in Tey sanz i. To see people making their lives on another world, an entirely new planet? To see the vitanbiyet, the flora and fauna here. This was what I'd studied and trained for, left homeworld for. You called me *nan tizan*, but I was *tei tizan*, red-eyed with this world. The Universe, this world—it makes me want to puke, it makes me so happy."

I laughed at this, placing one hand on the hillock of her hip. "You make me want to puke, with your rampant happiness."

She smiled, then, but it was so obviously sad that it made me queasy. She clicked her tongue behind her teeth.

"What? It was a joke," I said, gentle.

"Nothing," she said, and pushed her mouth against my cheek. I got goosebumps. She turned and pulled the blanket over her shoulder.

I think of what I said to Mi, about trying to understand the lifecastles. I still don't. We still don't. And why should we? We don't even understand our fellow Earthlings, really. All those animals we drove extinct, all the ones we saved from extinction, all the ones that barely know we exist. All the human cultures we've destroyed, all the new ones growing right now on Earth and other worlds, all the old ones we've clung on to. It's not like we're all a big ball of understanding, one big, happy Earth family.

We can't even hope to fully understand the human beings we choose to pair up and mate with, to share our intimacies and animal lives with.

So all in all, that we're here and haven't yet killed any of the vitanbiyet, or been killed by them, while we peer at each other on this remote world under its small but lively sun—that's a start. We survey them. Tag them with the markers, name them,

count them, observe them, watch the glowing dots of their markers move across our survey maps. Record their mindcarvings, especially when they form human shapes. Compare notes among surveyors about what we see on their skins, from minarets to gargoyles to forested slopes from Earth, though they're never any of those things. To date, we've counted sixty-six lifecastles in the explored hinterlands beyond Teysanzi, of which forty-two are alive now. Eighteen were named Shuyedan by different surveyors, because they were witnessed emerging from their progenitors, and were at the time the youngest recorded.

Only one Shuyedan had naked women across its back in a spine of bodies conjoined; evidence of a tiny, meaningless, insignificant emotion from a planet so far away its inhabitants had to tunnel through spacetime to land on the world. A heart carved into a tree trunk on a bright summer day, air thick with the humid light of a white star instead of a red one.

Whenever I watched lifecastles make new carvings, it made me a little sick to think of us etched into Shuyedan like that, as it went about its solitary life, under the silent companionship of its many-winged kilunpa.

Shuyedan-18 became a celebrity at the research center in Teysanzi once other surveyors spotted its unique mindcarvings. Some called it the "Dirty Old Man" as a joke, which bizarrely cut me to the quick, so much so that I had to quietly slip away to the washroom or brew a new thermos of tea whenever someone mentioned it. I always noticed Mi blushing fiercely but laughing with everyone else when someone brought up that stupid nickname, and it never failed to make me angry. She probably talked to our colleagues more than I had in ten years.

There were enough same-gendered surveyor teams out there that the identity of Shuyedan's muses remained a mystery. Whether or not Shuyedan's muses had done something wrong was a point of debate.

"You don't really believe this is real, do you," Mi asked me, in my apartment in Teysanzi, sheets still damp from our bodies. The grav-lights hovered over our bed, quiet, guttering stars in the gloom. I kicked one to the ceiling, where it stayed. "You seem tired when we have sex. Not invested," she added.

"Shatin-ba, Mi, what do you want me to say?"

"I don't really know. What can you say to a blue-eyed child? *Nan tizan, tei tizan*. All the same to you."

I got up, head brushing the low ceiling.

"I'm sorry," she said. "That was unfair."

"Mi, I can't just keep reassuring you every step of the way. There aren't a lot of people in this city. Being with a woman, not to mention my apprentice, is a professional risk for me."

"And it's not a risk for me? Am I popping out babies with some virile mate to strengthen the colonial populace while, while you suffer in silence?" she asked.

"No, that's . . . not what I meant. Of course it's a risk for you. But I'm sharing that with you. Doesn't that tell you enough? I took us to be witnessed by vitanbiyet."

She didn't say anything, instead sitting up and pulling her hair back into her strand-entangled scrunchie.

"What?" I asked, a new sweat rising on my forehead.

"You've made me feel strange about that ever since you did it. Like we violated Shuyedan by allowing it to see us have sex. We didn't carve ourselves on it, you know. It did that."

"That's ridiculous. I—" I swallowed. "I cherish that moment, Michiko. You have no idea how much. You really don't."

She looked at me and shook her head, letting her hands go limp in her lap.

"What is it?" I asked.

"I'm deporting. Taking the Krasnikov to Jaltara-Lafneik Protectorate."

"What?"

*"Ter nai lan, Tani."*

"Don't. I am calm. Where's Jaltara-Lafneik?"

"Watery Super-Earth, GB-277."

"You're leaving. You're leaving the world because you think I'm not—What?—serious enough about you?"

Mi pulled back her hair again, reworking the scrunchie. Pulled the hair taut against her scalp, severe and shining. I sank back into the bed. Her eyes were wet, though it was hard to tell in the dimness of the grav-lights and the stars beyond the skylight.

"No," she said. "Don't think that. I just, I want to see the galaxy. Like you say you do. But you don't. You stay here, and you don't seem to like it at all. Honestly I think you want to be back on Earth. You've lived here ten years and don't talk to anyone if you can help it. That's not me. I want to survey on other worlds. I want to survey other lifeforms."

"A week ago you were telling me you wanted to spend the rest of your life here, with me. That you loved it here."

"In ten years you haven't found a way to be happy here. I can't carry that for you. This is too small a place for me to share that burden. You're my closest friend here."

I thought of Mi being friendly with our colleagues and fellow settlers in the research center, laughing and joking with the carers in the school-commune.

"Who'd you have to fuck to get reassigned to another planet?" I asked.

Mi looked at me, wiping under her eyes, and nodded. She got up off the bed. "I should have left without telling you."

"No," I said. "No, no. Don't go. I'm sorry I said that. You have to understand how . . . What a surprise this is," I said, the words spilling over each other in my mouth.

She breathed out, weary, on guard. "I promised Jaltara-Lafneik a child. I'm young, healthy, fertile. Valuable on any exoprot, even one with a good position on the Krasnikov net. They have breathable atmo, no hurdles to growth."

"You told me you didn't want a baby."

Mi leaned against the wall and touched one of the grav-lights in the air, pushed it away. "I wanted you to like me, Tani."

"You lied?"

She shook her head, looking so young, yet so tired. "I don't want to be a mother. It's a bargaining chip to get off-world." Tired of me.

"So you're selling your body to some random person on this other world? Mi, please listen to yourself. Don't do this."

"Shit, Tani, it's not really about me at all, is it? It's about who owns little naive Mi's body, and that person not being you in your own mind. No more side pillow for you to hug every time you feel old and crabby." She sprang off the wall, bumping her head on the ceiling. Muscle memory seized my arms and I instinctively tried to get up and touch her, kiss her head. She raised her hands and backed away as if I were pointing a gun at her. I stopped myself. She sat on the bed again, crossed her arms tight against her chest.

"Don't you worry on my behalf, they have sperm banks. I didn't sign up to be a mate, it's not a damn dictatorship. You don't get assigned husbands. They use the commune system, just like here. The kid'll be raised by the community. I'm going there because I have skills they want."

I forced myself to speak calmly, gathering my thoughts instead of spitting them out. "What if you can't settle properly? You've got no lifeline, you're bartering away

your right to relocate again, unless you get rich there. You can never go back to Earth unless you really become successful there. Think, Mi. Just think about that. You're young, and so bright, but being old and crabby does give me some perspective, at the very least."

"I'm glad you have so much faith in me," she said with a small nod.

"That's not what I meant—"

"Just stop," she said, and silenced me. She finally looked me in the eye again. "You're not old. That's terrible, that I said that. I'm sorry."

"It's okay. Nothing wrong with being old. So I am crabby, then?" I asked, trying and failing to smile. She managed one, for a second. I felt my heartbeat deafen me with hope.

"All right. I know you think I've been distant. I'll show you, I'll be better. What if I came with you? We can start new, all new," I said.

Her face crumpled in sudden frustration as she let out a soft sound, a small moan that caught in my own chest. "Please. Please don't do this," she said.

"Why."

"You're a loner, Tani. You always were."

I shook my head, and before I knew it my head was in her lap, my cheek on her thigh as I wept into her. I shivered as she stroked my head, as if I were a baby.

I watched from the hinterlands, my buggy revving under me, as the lifter scratched a glowing line into the atmosphere before becoming just another star in the magenta sky. Mi didn't say goodbye after our final conversation. I didn't blame her, though I hated her for it.

I look at the ruins of Shuyedan. *Youngest*, fallen now. The arches of its ribs towering over the damp earth, some collapsed to bring the ceiling of its carapace down to the black sikri grass. Its skin pennants tough even after death, dried into wrinkled hide in the cool afternoons. They ripple lazily in the wet breeze, winter rain dampening the ruins slick. Shuyedan-18 died quite young, just three years old when its progenitor Urdhema declared war on it. It never got to become a progenitor itself, but then again, spawning new members of their race seems incidental to them. Perhaps it's not tragedy at all. Just history.

My own womb remains empty, though some of my fellow Teysanzians continue to drop hints that I should fill it soon, as a collapse-fearing, dutiful citizen. My cyba augments still keep my chances of bearing a child up, but even they'll wind down with my body. I wonder if I'd be so ostracized on Earth, or Jaltara-Lafneik, for doing as I please with my insides and outsides.

My boots crunch in the crumbled obsidian of Shuyedan's stone. I pick up pebbles of its skin and toss them, sending stray kilunpa glittering into the air. I'm in unexplored territory, the farthest I've been from Teysanzi. Shuyedan-18's tag failed during its battle with Urdhema, so it took a while to find the remains. Across the collapsed ceilings of the lifecastle's skin—mindcarvings of nude human bodies, multiple sexes, apart and together. Accretions from three years of observance, and evidence that others had come here to be witnessed by Shuyedan-18, unclothed in their tents, having sex, het and non-het. A new ritual. A new tradition between human and extraterrestrial. Looking at these newer carvings makes something click in me, like a clock starting, counting away from and toward something at the same time.

Then, I find the spine of the first human shapes to grace Shuyedan's back, now grainy with age, more beautiful because of it. I'll always recognize them. Frozen in their dance, their small moment of intimacy, ecstasy. Their faces have worn away to pits and nubs, some of their limbs stumps. But still recognizable. Still intact. Shuyedan never erased us from its skin, never forgot its first glimpse of humanity unclad.



"Teysanzi-central," I say into my helmet. "Shuyedan-18 ruins located. Something to see. Recording now. Recommend cordon, salvage for preservation and study. Will proceed to scraping ikan residue. Observing the famous erotic mindcarvings, the original ones—two human women in coitus, replicated over and over, as if passing in time. The muses." I listen to myself breathe inside the helmet. No one at the terminal. Slackers. I go on talking. All transmissions are recorded.

"Advise further experiments—nudist tent colonies out in the hinterlands. Rampant hedonism for the benefit of the lifecastles," I pause, thinking about this.

"Hear me out, actually. Shuyedan-18 is the first one to actively observe us, to remember human form long enough to keep its mindcarvings of us preserved in such detail. I think it's because it saw us naked, without surface suits, interacting together. It recognized something in us, something alive. Vulnerable. Maybe visual body language is a way for us to communicate with the vitanbiyet. Especially newly separated ones. Dirty Old Man's gone, rest its soul, along with, I hope, its wretched nickname. But there are other lifecastles. I think, central, that this is the beginning of a long friendship," I smile into the mic.

My fellow muse, gone.

"Additional. Reporting witnessing, approximately three point five years prior, to Shuyedan-18, ankhalan. That's me in the carvings, one of the original muses. You heard right." I switch off the comm system, feeling light-headed. Maybe now they'll send me back to Earth, where overpopulation can take good old-fashioned non-hets like me.

Earth. Perhaps I was always *nan tizan*, and just never admitted it.

I look up at the empty spot between the stars where the Krasnikov Gate graces the sky, invisible to the naked eye. I wonder what it would look like collapsing.

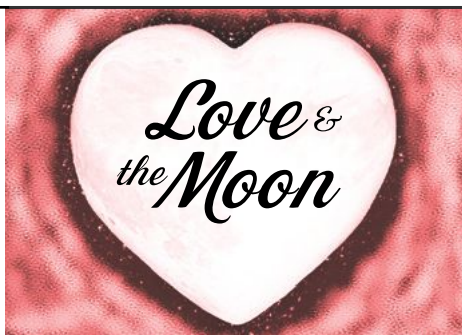
I know they can't do anything to me. I'm a citizen. Block me from progressing up the career ladder, becoming a supervisor, going into active city governance? Sure. But we're endangered, us Teysanzians. They need me. I'm staying, till the end of this world if it comes. I'll outlive every last human bastard in Teysanzi so I can sip champagne alone under the ruins of my sweet Shuyedan-18.

I bend down to look at the spine of Mis and Tanis fucking and decaying in the dim red sunlight. One of them has her head thrown back, black neck open to the drifting rain, mouth open. It is clearly Mi, though only to me. Under her, the other woman with her eyes closed, mouth a placid line. Me. I run my fingers across Mi's face, and my gloved fingertips come away black.

"Vitanbiyet Shuyedan had a dream of love," I say to her, and let the rain run down my hand. ○

Aeons ago,  
blind sea slugs mated  
at the full moon's perihelion high tide.

Six hundred million years later  
we associate the moon with love  
but have long since forgotten why.  
—Geoffrey A. Landis



# GHOSTS OF THE SAVANNAH

M. Bennardo

**M. Bennardo's historical fiction has appeared in *Strange Horizons*, *Shimmer*, *Beneath Ceaseless Skies*, and *Lightspeed Magazine*. It has even been reprinted in Jonathan Strahan's *Best Science Fiction and Fantasy of the Year: Volume 9*. The present story, however, is his first approach at prehistory, an era for which he has learned there are substantially fewer surviving first-person accounts.**

“Come on,” says Sedu. “Let’s run.”

And before I can ask why or where she is already off, and then I’m off too—dropping the grass mats in my arms and sprinting after her. The other girls throw down their mats and poles and hammerstones too, and are soon trailing after us, but they’re too young to keep up. Among all the virgin hunters, only Sedu and I can really run.

And we *run*.

We run down the gentle slope of the valley toward the mud flats, where crisscross channels carry water from the highlands out across the savannah. We’ve just come from those rain-lashed highlands, from our seasonal strongholds in the caves of those hard rocky outcrops, a journey of many days distance, bringing our summer houses and our other belongings on our backs and heads.

The caves are no fit home for us. We huddle in them in twos and fours and sixes, widely dispersed, scattered helpmeet with helpmeet, father with son, mother with daughter. But Sedu and I have none of that. Orphaned and unpaired, we huddle together, along with the rest of the girls like us—girls of no family, not adopted into any other house.

Together, we wait for the long, dull, rainy season to end and for the savannah to dry out once more, for the grass to reach up again from the red and brown clay and crowd the riverbanks and hills to the height of our thighs. We wait for the earth to dry and pack until we can run without being sucked down in its tacky grip.

We wait for the gazelles to fatten in the fields. And now, at last, our waiting has ended.

Ahead, Sedu splashes through a low place near the river, kicking up sheets of muddy water behind her. I follow, feeling the warm mud slick beneath my bare feet, great streaks of it coating my legs and hips and back, then drying and flaking white under the sun. Even the air is heavy here, misty, shimmering, dancing, hot.

Ibises and storks jump out of the way, plunging from the side pools and puddles into the brown water of the river itself, the channel still wide with the runoff of winter torrents, but slow and turgid now, a meandering shallow flood that will diminish to nothing but a trickle in a parched waste by the time we pack up our village and leave for the highlands again.

Already, the big beasts have mostly gone, following the draining river toward deeper watering holes to the north. A pair of late aurochs watch us from the other side of the bank, shaggy heads hung low, great crescent horns swinging as they trot along. But otherwise there is nothing left of the big beasts except elephant bones and buffalo horns haphazardly scattered amid the ground litter, the bare remains of young giants trapped in the sucking mud and felled by lions, their skeletons later picked clean by hyenas and vultures.

The vultures are watching still at least, perched in the dead trees that soon rise up from the horizon. We run toward them, and then through them—bone-dry trunks stripped of bark, rattling leafless branches waving against the sky, tips of twigs clattering as the vultures shift and hop from branch to branch, black wings spread crookedly to the sun and blood-red heads glistening like the gore they feast upon.

Under the dead trees, the evening wind rises. Here, Sedu stops, turning suddenly, her thick black hair whirling around her head as she flashes her smile on me. She grasps my hands, scarcely able to contain her joy, clutching at me as I almost collide with her body. We're women, both of us, old enough to have been helpmeets and mothers years ago had we so chosen, but with Sedu there are times I still feel like a girl of twelve or thirteen.

Now I gaze in her dark eyes—hard eyes that rarely twinkle or shine among the rest of the village, secret eyes that take me a long run away to tell me what they have been bursting to say.

"Yes?" I ask. Breathless, but not from the easy running.

"This season," Sedu says, "I shall lead."

Night is approaching by the time our long loping run brings us back to the new village rising up out of the valley floor. The sky is fading red over the rugged bluffs where I know Hatto has been plying her paints all day, pressing fresh strokes of ochre and umber where the rains and floods have faded last year's work.

We pass by pairs of helpmeets and lone hunters as well, freshly arrived from other highland camps, converging as always in the valley for the long and difficult hunts of the dry season. Sedu and I know everyone by name, though the village's numbers have swollen larger and larger as year after year our best hunters have taken gazelles in plenty and the children have grown fat and many.

Every year there are more fights over the best places for houses. There will be fights too over meat and forage on lean nights, and over hammerstones and reeds and shards of ivory. And fights, of course, over men and women, and wandering hands and eyes.

Sedu and I call greetings to each returning villager as we see them, leaping over their half-built houses or chasing and scattering their children amid playful shrieks. One of the best hunters, Kashaan, calls after us angrily as we run by his house, Sedu and I together lifting up his youngest son, each holding one of his arms aloft, dangling the boy between us as he crows and whoops.

"Old maids, old maids," calls Kashaan scornfully. "Why can't you find a man?"

I blush at the question, half angry and half embarrassed. I have not failed to see how Kashaan's oldest son, Kantu, has jumped up in height and manliness since the last dry season. I have not failed to see his long strong legs, and I know already his eyes are soft and wet—even though he turns them away and bows as though trying to hide himself as Kashaan calls his gibes after us.

But as we race toward the virgin hunters' house, I turn my head back for one last glimpse. Then I see Kantu watching us as we leave. But not Kantu only—Kashaan too, who has had no helpmeet since his last died delivering his youngest son.

Yes, Kashaan too—his angry gaze fixed thoughtfully on my strong hunter sister Sedu.

\* \* \*

Sedu inspects the house that the other virgin hunters have completed in our absence. They are girls, all of them—most far too young to choose a helpmeet yet. So they live here, with other girls in similar straits, and help to scatter the gazelles at the start of the hunts.

Most will take a helpmeet when they are old enough, and most of those will become mothers. But Sedu and I have stayed on, past the usual time for such things. We ought to have left to start our families before we reached Kantu's age—at fifteen or sixteen at most.

But by then we had found we could run as fast and as far as any man. Faster and farther than many. We helped start the hunts, and helped finish them as well. The thought of bearing and birthing children seemed always less enticing than the life we already had. It would mean no more running—no more hunting.

So we stayed and grew older. And so long as we could run on our own legs, no one knew any way to make us leave.

"Who lashed this mat?" asks Sedu, pulling at one of the walls of the house. It flops half open, letting in the cooling night air. The girls giggle and point fingers. "Fix it better!"

But mostly, she is pleased—and I am pleased to see her pleased. The house is sturdy and well built, the poles driven deep by hammerstones, the floor clean and flat, the ceiling high and spacious. It is a good house. Even if we have nothing else, we can always have pride in our house.

Later, we gather with the rest of the village under the bluffs—firelight flickering weirdly against the rock walls where Hatto has been painting gazelles all day, star-glow casting faint silver light on the valley around us.

But Hatto's eyes gleam bright, almost like a lion's, and I recognize the reflected glow of Secret Voice and Secret Sense inside them. We don't talk about them—those secrets of our own minds and spirits—but we all hear them and feel them. Clear, like a hawk's cry, the urging Voice that no one else hears. Sure, like a goat's foot, the Sense that guides us away from the tradition of our ancestors into new ventures.

Now and then, they have gleamed in everyone's eyes. I know that Secret Sense has surely guided Hatto's hand in her painting today, and that Secret Voice has surely told Sedu that she would lead this season.

It's exciting—wonderful.

But of course Kashaan rises to take the first straw from Hatto's hand. He climbs up to where the largest and brightest gazelle is painted, fat belly and long neck and twirling horns drawn in pigment, the shapes and lines clear and dried now, baked edges flaking where they've cured and curled earlier under the hot sun.

Then Kashaan grips the straw between his teeth and hangs by one hand before the rock face, slapping his other palm flat against the painted gazelle. He blows through the straw, the packed sienna dust inside exploding in a glittering cloud and coating his hand, leaving a red stain on the bluff wall with the negative shape of his hand around the gazelle.

Kashaan, clutching. Kashaan, conquering. Kashaan, *killing*.

He leaps down and crows, and we others roll our hammerstones together, the sound like the clatter of hooves and the sharpening of cutters.

Then another old hunter steps forward and takes the second straw from Hatto. And another and another, the best hunters claiming their familiar places as leaders, orderly and expected, clutching their hands around each gazelle in turn, each one searching for the largest and fattest, jostling and competing to claim the most successful hunts from what Hatto has painted.

No need for Secret Voice or Secret Sense to guide these acts—it's only what has happened many times before already, year after year, since before I was even born.

At last, the final painted gazelle remains. I look to Sedu, half-worried, wondering why she has not taken her turn before now. Has Secret Voice told her to stay still? Something inside me aches in sympathy. I can feel her desire—it is my desire too. To see Sedu lead the run after the gazelles, to hear her whistle the orders and watch the hunters step to the commands, to watch her slit the throats of the exhausted beasts as they go down at last amid the dust and kicking and shredded grass—

Yes, my heart leaps, for Sedu rises and starts toward Hatto to take the final straw.

But then Kashaan is there again, barring her way with his heavy body, one thick arm pushing her back down among us watchers as the other thrusts Kantu, his son, forward instead. For a moment, the three bodies seem to hesitate in the darkness of the night, an unbalanced tableau that might yet tip in any direction—but it is Kantu in the end, pale-faced and trembling, who leaves his handprint around the last of the painted gazelles.

Sedu runs ahead, and I follow after. Her body shimmers in and out of focus, out beyond the heat haze, brown skin and black hair and a cloud of yellow dust floating above the swaying stalks of grass.

My bare feet slap against the earth as we move in an easy run, one after the other. We are almost naked, two strips of hide our only covering. One circles loosely around the hips, a pair of hammerstones couched inside above the small of the back. The other binds the breasts.

Early in the morning, we rose in the dark and chill before dawn. We shuffled in the dirt and slapped our legs warm, singing and shouting at the fading stars alongside the other virgin hunters as the village fire flared up once more in its dying glory. Hatto danced among us and the other hunting parties, waving her greenwood wand, wet leaves at the end dripping with water.

Then we were off, bounding toward the old grazing grounds in knots of five or six or seven, the girls of the virgin hunters trailing each party to help with scattering the herds.

It is good to be running, but I cannot forget that Sedu is not leading now. Kantu is leading. Sedu and I follow, along with three other men running far to the right of us.

It is Kantu who picks our quarry, a young doe that jumps nervously, uncertainly, on quivering stick legs. At the startle, she makes extravagant leaps, bounding off into grass taller than her knees, floundering for a moment like a drowning animal. Kantu whistles the hunters into the gap between the doe and the herd, and soon she is hopelessly separated and alone.

Grudgingly, I admit it was a fair choice. A safe choice. But I wonder if Secret Sense would have sent Sedu after a better target yet—a larger animal with a more subtle weakness, perhaps. I could see her eyes wandering through the fleeing herd even as we fell into formation at Kantu's command.

But she does not contradict. She does not stray from her place. We must work together and there is room for only one hunt leader.

We run on, chasing the doe along the well-known paths, the men always scaring the doe back away from the herd whenever she moves to rejoin it. After a while, the open savannah funnels into the grassy avenues and glades of the dead forest. Sun-blasted trunks twist overhead into a canopy of bleached branches. Raw-headed vultures hop above, shifting their scavenger eyes to follow the stop-and-start flight of the bounding gazelle, calling excitedly with raspy voices. They know a doomed flight when they see one.

As we leave the dead forest behind, Kantu's whistles carry over the wind. They are signals to me—and the hair prickles on my neck in anticipation as I hear them. The

sun is high, just at the zenith, and the plains spread wide before us. The heat here is punishing, the footing uneven, and there is no help or refuge for the doe.

I accelerate into a harder run, gaining fast on Sedu as my legs and heart pump quicker and quicker. The soft tips of the tall grasses flick against my thighs, flying open before me as sweat breaks from neck and shoulders. I veer left and begin to climb a hill.

Sedu stays steady on, turning her head just a fraction toward me, her dark eyes bright in the joy of the chase. She whistles softly to me—not a command, but a secret message of encouragement and faith, in the shared love-code of our girlhood—then turns back to the gazelle.

I can see the animal clearly ahead now, lather flecking her side as she bursts in a new and more desperate sprint, back arching and hooves kicking. She leaps and runs hard, no grace or easiness in her movements anymore—just brutal scrambling driven by the instinct to survive.

But the end is near. Almost fastest of all creatures, she has no endurance when she is pushed, and already she has been stretched beyond her limits. Soon she will collapse, quivering and spent, her gulping throat bared to the sharp edges of our flints.

*How handsome is my sister as she jumps astride a gasping gazelle?  
How lovely is my Sedu as she tears a ragged slit?  
How alive are we as her flint is bathed in blood?  
How alive together when we bring our quarry home?*

On days when we run, we rise amid the predawn fussing and flocking of the black-birds and swallows. On days when we rest, we sleep late in a tangle on our springy bough bed in the virgin hunters' house—dreaming in a tangled pile of long limbs and synchronized expanding-contracting chests until the heat of the day and the drone of the locusts wake us.

In the evenings, the children and old people heap bone-dry branches in the center of the village. Then the men and women sit down, singing and smashing their hammerstones as the children run from spark to spark with bits of tindergrass, and husband a dozen tiny flickering flames into a great roaring conflagration. . . .

I love to see the fires burning as I run by Sedu's side back to the village, the soft red glow guiding us on the horizon. I carry a leg or loin from some freshly butchered gazelle—holding it triumphantly above my head as the children rush out to accompany us back to the blowing and swirling fire, where our quarry will be roasted beside foraged yam and sesame and argan fruit.

Sedu doesn't crow or cheer as we return, but simply glows with satisfaction. Everyone can see how often she wears the blood splashes of the dead gazelle. Everyone can see when she is the one who has driven the killing blow.

Those nights, I watch Kashaan, to see he knows my sister's strength and skill. And those nights I am sure he does—for he says nothing to us at all.

On other nights, we return weary and disappointed on stuttering legs and aching feet, hands empty and shoulders unburdened. Those nights, I don't look at Kashaan, but still I hear him jeering from the fire ring or the village.

"Old maids, old maids," he calls, shaking the walls of our hut as though trying to tear it down. "Leave the hunting to the men."

But it is always to Sedu he directs his bitterest taunts. Always to my sister he gives the worst of his tongue.

"Worthless hunter girl," he calls, leering into her face. "How can you run when my hearth is still unswept?"

Sedu is as silent and stony in failure as she is in triumph. But those nights Kashaan can see me cry bitter tears, if it makes him feel better to do so. And if he looks, he can see Kantu cry them too.

Sedu runs ahead, and I run beside her.

Another day wears on past midday and another gazelle flounders wearily in her flight. I whistle back to Kantu, answering his command as I ascend the shallow hill on the left. I am downwind of the gazelle, and keep out of her eyeline as much as possible, so as not to alert her of the menace creeping up now on her left.

As the hill rises higher, I can see the rest of the hunters far to the right of Sedu, edging into view in the distance. The four of them are strung out in a long picket with Kantu keeping the pace in front, long legs now covering ground almost as fast as the spent gazelle can.

It is my job to watch for my chance. To watch until I can race down the hill and drive the doe toward the line of men, closing the noose on the snare as Sedu runs up from behind. Tired and frightened, the gazelle will stagger and collapse amid the converging hunters, flints already in hand, the dusty ground and golden grass ready to be spattered with warm spots of burgundy.

It's only with a corner of my eye, then, that I see Sedu suddenly stumble. But it's with all my ears and all my body that I hear her cry out in pain.

For a few paces more, Sedu bravely keeps her stride, jaw clenched and muscles rippling under dark skin as her feet strike the hard dirt with shuddering blows. But then she falls heavily to the ground, her voice rising raggedly as she gasps for air, rolling onto her back with her legs curled above her.

My heart leaps in pain. I've seen it before—her leg broken underneath her. A wrong step, a snapped bone. And the pain that has felled many a stronger and taller hunter than she.

For a moment, my pace falters too. I look back, Secret Voice screaming at me to break the chase and run to Sedu's side.

But I shake my head and face front again, running all the harder to cover the ground I've lost. The chase is life. The chase is everything. Were I to listen to the urging of my heart and were I to abandon it now, this gazelle will slip the trap and disappear into the savannah, and a full day of hunting will have been for nothing.

Locking eyes with the haunches of the gazelle, I follow instinct and I run on. The hunger in my belly, my own desire for life—they overmaster me and I set my jaw firmly, running on, even as Sedu's cries of pain diminish and vanish behind us, and we leave her quickly alone behind.

It's a longer run than I expect until the gazelle is brought to ground, but at last she goes down in clouds of umber dust. In the end, she kneels almost reverently as Kantu draws a flint across her throat, her eyes rolling back into whiteness and head shuddering down upon a reddening breast.

As the other hunters squat to strike flint chips off their hammerstones for choppers and blades, I instead take deep breaths, inflating and emptying my lungs, leaning with my hands on my knees. Shivers run over my body from my quivering calves up to my scalp. As I watch the men start in on the butchering, my stomach suddenly heaves, threatening to empty acid on the dust between my feet.

"Come," says Kantu, already spreading the limbs of the gazelle, working them to break the ligaments to make them easier to hack apart. Three flint choppers fall with dull splats, tearing through white skin and pink flesh, cleaving at the joints. "Help us," says Kantu again, a tone of remonstrance in his voice.

I shake my head, my face drained. I know that Kantu is counting the time until scavengers spot the kill. Already, vultures are wheeling away from their patrols, wings thrown greedily forward as they investigate the dust cloud blowing away from the bleeding gazelle. Who can say how close a pack of hunting dogs or a pride of lions might be—or how soon the scent of the kill will reach their noses?

Better to butcher quickly and be on the way back to the village before the blood is dry upon the dirt. “Come,” says Kantu again, his hands already covered to the wrists with blood.

But I cannot wait any longer. I cannot stay. Are vultures also circling above Sedu’s broken body? Are hunting dogs or lions padding their way toward her even now, their ears cocked to her cries of pain?

I take five more breaths, filling and emptying my lungs, my head spinning with the great gulps of air. Then I’m off, running back as fast as I can to where we left Sedu behind us.

She is gone. Nothing remains but broken grass stalks and roughened dirt where she rolled and kicked in her pain. A dark dragging trail leads through a tangle of bent grass, heading back in the direction of the dead forest. I follow the track.

I run more slowly now, heart beating heavily and sweat dotting my scalp. My calves ache after the long run after the gazelle and I know that soon I will be ravenously hungry. But for now, my stomach is in knots over Sedu. Did she drag herself this way—or did something else?

But no—I put that last thought from my mind. My sister is strong. My sister is brave. She would never lie still and wait for death.

As the grass thins out and the spare canopy of the dead forest spreads overhead, the dragging trail disappears and is replaced by two rows of short shuffling footsteps. Relief pours into my breast. She can walk! Or stand at least—perhaps with the aid of a branch, or an elephant tusk. I try not to think of her pain, the weight on her broken leg, the limb hanging useless and swollen below her knee.

I’ve seen other runners fall that way. It means a break of the thin bone of the leg—that slender support snapping like a twig on a bad footfall on the hard, dry earth during a long run. When it happens, the runners always go down in agony, faces twisted. Sometimes, they don’t walk for days afterward.

But my Sedu is strong. I think the thought as I follow her footsteps. My Sedu is brave.

Evening winds blow across the dry, dead forest, kicking up a curtain of dust. Flying grit rattles against smooth trunks and stings my bare skin. I shiver as the sun is blotted out for a moment, my hands covering my weary eyes, my dry nostrils, my cracked lips. I am at the end of my own strength now, and when night falls I’ll be at the end of my bravery too.

“Sedu!” I call, facing into the wind, dust filling my mouth. I call again and again, turning to the right and left, trying to follow the footprints even as they are scoured by the rising gale. Perhaps Sedu has managed to limp all the way back to camp. Perhaps she will be there when I return.

But from out on the savannah, a strangled yelp floats down on the wind, the half-howl of a hunting dog on the prowl. I shiver again, the coldness of evening growing deeper.

“Sedu!” I cry, tears suddenly streaking my cheeks. The next sound I make is only a sob.

Then, at last, I hear a sharp hiss in return. It is close by, coming from under one of the dead trees, where its hollowed trunk splits darkly over a yawning hole in the earth. It looks like the den of some animal—a fox or a jackal, perhaps. I kneel down to peer inside.

“Sedu?”

“Hssst,” comes the reply. “Quiet! You’ll have Kantu and the rest here too.”

I can only dimly make out Sedu nestled in the hollow, her eyes staring up limpidly from the darkness. Those eyes don’t look stony now. They look ragged, wounded,



child-like. This girl is barely like the Sedu I know, but the tight ball of fear in my chest loosens a little all the same.

"Can you walk still?" I ask. "I'll help you back."

"No!" hisses Sedu. "I won't go."

I stare at her in wonder. "But you must!" I say. "You can't stay here. Night is coming!"

I try to reach for Sedu's wrists, to give her my hands and help her up, but she backs further into the hollow, wincing and groaning, glaring back defiantly.

"I will stay here," she says. "And you mustn't tell anyone."

"No," I say, sadness and desperation collecting in my breast. "No, Sedu. You'll die alone."

"Better that," she says.

"Better than what?"

And suddenly, I know. Secret Sense flashes upon me, and Secret Voice whispers the answer in my mind at the same time as Sedu hisses it back to me.

"Kashaan."

Yes, better to die under the tree than to be dragged from the virgin hunters' house, helpless and unable to run. Better that than to be made a helpmeet against her will. Hadn't Kashaan been following her with his eyes? Hadn't Kashaan been yearning to take her out of the hunt?

*Old maids, old maids*, he taunts while greedily watching Sedu. *Why don't you find a man? Why don't you put those strong hips to better use, worthless hunter girl?*

I have a vision suddenly of Sedu sweeping the hearth sullenly in Kashaan's house. I have a vision of her with belly distended, and a baby on her hip with another playing at her feet. Her strong body bearing child after child for Kashaan—children that his other helpmeets were too weak to rear. And Kashaan himself, growing fat in his old age as his sons bear him up.

Poor Sedu! Could it really happen? Could Kashaan really dare? Would no one else tell him no?

Across the savannah, the hunting dog howls again and it is answered by another—and then by two more. Full-throated, bloody-minded, and closer now. I look out of the hollow and see the sky blazing red and yellow as the sun sinks away.

"I will not go," says Sedu. She sounds resentful but defiant at the same time. Fear, I would call it in anybody else. In the darkness, I can just make out her fingers curled around a cutting flint, and the flint laid against her own wrist. "Now you'd better run."

I look back at Sedu again, my heart full of doubt. Back at camp, they will feast on the gazelle—but in sadness and worry, fearing for the missing hunter. In the morning, everyone who can be spared will look for her. If only Sedu would answer their calls! If only she would want to be found. It wouldn't be the first time a hunter passed a night alone on the savannah after an accident, and Sedu's hollow seemed almost as safe as any house in the village.

"I'll stay with you," I say. "Until they come tomorrow."

"No," says Sedu. "You must go back. You must tell them not to look." She turns away suddenly, as though flinching from a blow. My heart aches, but her eyes are hard when she looks at me again—the hard Sedu I remember from old. "You must tell them you saw a lion kill me."

"Sedu!" My heart overbrims with pain.

Sedu crawls forward again, half out of the hollow, pointing her finger at me. "When my leg is healed, I'll return—back to the virgin hunters' house. When I can run and hunt again. Only then."

I'm quiet a long time, but finally I nod. I can see no other way, nothing else to do, so long as I believe that Sedu will use the cutting flint she has laid across her wrist—and I believe that she will. My sister is strong. My sister is brave.

“Good-bye, Sedu,” I say quietly.

“Good-bye, loved one,” she answers.

Then I am up and running again, back to camp with a heart like a cold stone of worry and fear.

The lie is like mud in my mouth. After I tell it, I drink gourd after gourd of springwater, but nothing seems to wash it out. It coats my tongue and lips and makes even the water taste like ashes. Hungry though I am, I can barely force down any of the meat.

“Did you really see her dead?” Kantu asks, quietly, later, after all the others have left me alone.

And for a moment, I think I will tell the truth. Staring into his brown eyes, I think I can never deceive him. I think that I can trust him. But then I shake my head and I say the lie again.

“Yes,” I say. “Yes, I saw Sedu dead.”

For how can I say that I left Sedu alone and hurt on the savannah? How can I admit my own weakness? Oh, how can I look Kantu in the face and tell him I left my sister to die?

As the gazelles roast in the fire ring, Hatto appears, acting the ghost. The village is already in high emotion—some crying, some singing, some shouting—when Hatto emerges from the river, her naked body covered head to foot in glistening grey mud.

She leaps and slinks through the village, pale and silent, even her hair caked with mud, shocked into a crown of white horns rising and twisting over her head. Everyone else sweeps before her, fear for the moment boiling to the surface—not fear of the ghost, but fear of what she represents, the reminder of the death that stalks us all.

*Strong though one may be, the lion is always stronger.  
Swift though one may be, the leopard is always swifter.  
In cunning too, the patient hidden crocodile has no equal.  
And in diligence and skill, the hunting dogs cannot be outmatched.*

But these fears aren’t my fears, and my grief is not the same grief. Even as I console the youngest of the virgin hunters who cling to me, wailing at the loss of one whom they loved as a child loves a parent, one whom they considered as solid and as immovable, as constant a part of their world as the ground they sleep on or the sun that burns them—even as I console those inconsolable sister-daughters of mine in the depths of their despair, I know that Sedu is yet still alive.

I know that she needs me and she is alone.

*Or is she?*

That is the fear that grips me with every heartbeat. Is Sedu now, at this moment, raving in fever, her lips and throat cracking without any succoring hand to bring her water? Or is she huddled in her hollow, listening to the sniffing and growling of the hunting dogs as they nose out her scent?

The fire whirls up in the wind into a roaring cone, bales of tindergrass stacked in a tottering tower with branches laid against it at all angles—the flaming wood now singing and blackening as the grass disintegrates in hot puffs, a thousand tiny glowing bits of ash floating down upon the wind.

The air is filled with sweet smoke, and it stings my eyes. On the other side of the fire, Kashaan stands in the light, a lion-skin draped over his shoulder against the coming chill of the night, the smaller forms of his three sons arranged around him.

Kashaan reaches out and cuts a strip of steaming meat from the side of one of the roasting haunches. He hands it to one of his sons and reaches out for another. He is

lean and tall, one of the greatest runners of the village still, even though two patches of silver streak the hair that grows over his temples. He is looking, I suddenly realize, across the fire, half-bitterly and half-thoughtfully—looking at me, in his absent stock-taking way, in the way he had once looked at Sedu.

Then suddenly, Hatto is before me, sweeping and dipping, trailing and twining her mud-covered arms. A sob rises in my throat and it breaks on my lips. I push the young virgin hunters away from me.

I feel as filthy as if I were the one covered in mud, but I cannot say or do anything. All I can think of is Sedu in her hollow, the flint chip grasped in her hand. Then all at once, I am smashing my hammerstone at the ground before Hatto's feet, crying and howling.

I smash and smash, dust rising from the earth, the hammerstone thudding dully against the brittle clay. But I smash on until my hammerstone strikes a rock in the ground, barking sharply on the hard protrusion.

Smash, smash, again and again. Hatto dances mutely as my fingers fumble for one of the broken shards of flint. Kashaan broods as I scrape the sharp edge along my scalp. Kantu watches as clumps of my hair fall out and rivers of blood pour down my face and neck. The virgin hunters sob and wail as I collapse, my head now fully shaven, on the ground and give way to grief and exhaustion.

When I wake, the village is quiet and the fire is low, a broad circle of glowing red embers snapping in the cool air. The moon has risen, and I pull myself off the ground.

My scalp aches and I scratch my head. Flakes of clotted blood rain down, and the still-fresh cuts in my skull flash with sharp pains. I've shorn my hair for Sedu, but I feel no sense of atonement or relief. I only feel sick at heart with worry for her.

Everything is quiet. No dogs are calling, no lions roaring. The sounds of the night are quieter: faint snores and murmurs drift here and there through the grass walls of the houses, and somewhere a wildcat or weasel is digging in a trash pit. Peeking inside the virgin hunters' house, I see my sister-daughters asleep in a pile, eyes closed in total weariness over tear-stained cheeks.

I know I should not go, but what can I do? Secret Voice has not been silent since I left Sedu alone, and I know I'll be sick at heart so long as I resist the call. If Sedu is still alive, she will need me to keep her that way. Even if she can nurse and defend herself, how will she hunt? What will she have to eat? I pack a sling with leftover meat and yams, and tuck it under my arms. My feet are tingling already on the cool earth.

There are scorpions and snakes along the way, I know, and worse. But nothing soothes my heart and quiets Secret Voice except to lope across the moonlit savannah, away from the village and the fire ring into the eerie night. I stretch my muscles as I walk and inflate my lungs, chafing my sore, strained legs. I hop as I walk, and then I jog.

Then my heart lifts and I run, toward the night, toward my sister Sedu.

Days later, I am still running.

I am running from tree to tree on the open savannah, between the scattered tumble-down baobabs that tower over the grass, lone sentinels posted always at great distances from each other. I climb clefts in the thick and gnarly trunks amid the flitting bats, watching warily for snakes and draped leopard paws, then pump my legs against swaying branches to make the fruit rain down upon the ground.

But it is tiresome work, running and climbing so far for small slingfuls of the dry, pulpy fruit—barely enough to keep us alive. And as the nearby trees are depleted of their bounty, I wake earlier and run farther, making up the deficit by widening my search.

I cannot go on like this. We cannot feed on fruit forever.

Sedu's knitting bone lets her hobble now with a little less pain. But she cannot yet do more than limp. She still will not go back to the village, and she will not let me seek the help of anyone else. Already, the searches for me have ended. Already, I am sure that Hatto has danced the ghost for me—another lost hunter who died out on the savannah.

But Sedu and I cling to life a little longer. We wolf down berries or seeds when we can find them. We shatter beehives and feast on the honeycombs, our hands and faces swollen with stings for days after. But it is never enough. And the baobab fruit grows more scarce.

On some nights, we squat shivering in the darkness, generous streaks of stars overhead, planets wandering along their familiar tracks. But on other nights, we cannot bear the deepness and blackness of that eternity—the velvet curtains that hide the prowling of the dogs and lions through the dead forest, where grunts and snapped sticks often mark the footsteps of invisible visitors among the trees.

On those nights, we burn small fires of grass and wood, the wavering circle of light keeping the dark shadows at bay—but doing nothing to quell the ever-growing hunger in our stomachs.

And can they see us from the village, I wonder. Can the sharpest-eyed hunters see the tiny pinprick of our fire glimmering in the dark? Do they know what it means? Or is it just another distant mystery, another alien enigma in the night? A new phenomenon with no cause or effect, to be catalogued and named and avoided by every sensible human?

Beneath a baobab tree sometimes, I spy the horned heads of gazelles floating above the heat haze and the swaying grass. Always, their eyes follow my approach—warily, nervously, with silent looks of warning and discomfort flashing among the beasts in the herd.

And always, before I am even close enough to count how many there are—they jump away into the grass, legs beating and buttocks pumping as they sprint far beyond my reach, a short and quick run. Then they stop and turn to look at me again.

I'm tempted to chase after them. My stomach rumbles, and I know the sling of fruit I carry will not make it stop. There is meat in that herd. There is what I yearn for—to wrestle one of those animals to the ground and to carry home a leg or side to roast on the fire.

Then Sedu and I would feast! Grease on our chins, and warmth in our bellies, laughing under the stars as we crack the ribs and snake out the marrow with our tongues. Yes, and Sedu would gain her strength then—instead of lingering weakly, ending each day hot and feverish with her leg still swollen and tender. She would heal faster, walk surer, and soon run! Letting us return triumphant to the village before the others pack it up and disappear into the highlands ahead of the rainy season.

But it is impossible. A single hunter could never run down a gazelle—not so long as it had its herd nearby. Even four or five gazelles together will cross their tracks, splitting and regrouping as they bound ahead, switching places and letting each other rest. A single hunter would hopelessly lose the thread of the one she pursued. It took a line of runners, strung out in a picket, to keep a single gazelle separated from its herd for half a day or more. Alone, I would only waste my strength.

But neither can I let Sedu waste away for want of meat. But how to meet the challenge? How to bring a gazelle down on my own?

In despair, I turn to Secret Sense—but it is silent. It is only much later that night, when I see the red glow of the great village fire light up the southern horizon, that an idea finally comes to me.

Sedu is already asleep in the hollow. I look at her tenderly—and worriedly. It is a dangerous plan, and Sedu would surely not approve of it. So I won't tell her.

Only if it works will she ever know what I've done. Otherwise, I will come home tomorrow night empty-handed, not even bringing fruit. Or perhaps, I won't come home at all.

I rise early in the morning and plant a kiss on Sedu's sleeping brow. It is hot already under my lips, and she murmurs weakly but her eyelids do not open. Soon, she drifts back into deeper sleep.

I run to the river in the blue half-light of dawn, a chorus of frog calls accompanying me as I dip into the water again and again, pulling up great handfuls of grey-white mud. It's cold and oily, clinging to my skin where I smear it. I cover my arms and legs, the goose-fleshed hollow of my stomach, then my breasts and shoulders, the small of my back, my face and scalp, working it even into the fuzz of new hair that has begun to cover my skull again.

I am the ghost now—my own ghost. Dark eyes starting out from a mud-white face, my skin tightening and stretching as the mud dries upon me, sticking in flakes to my body.

Then I run.

I run down along the riverbed, and out into the savannah, up to a hilltop over the grazing grounds. There, I squat down to wait.

As the sun climbs higher and the day grows warmer, the mud hardens. But it clings—it holds. I am still the ghost, even as flies crawl over my shoulders and arms. Even as beads of sweat soak through the mud and roll down my unfeeling back.

Midmorning, I see what I have been waiting for. The gazelles below suddenly lift their heads, alert, sniffing the air, the torn stalks of tough grasses hanging from their mouths as they blow out their nostrils in alarm. Their heads roll on their necks, and I stand up on the hill, slowly and measuredly, excitement coursing through my veins and my heart pumping faster and faster.

Then the gazelles below all turn and bolt at once through the grass like a flock of swallows exploding and wheeling together into the sky. I hear the dull thunder of hoofbeats and see the clouds of dust trailing them, billowing lazily in the still air, the dust sparkling in the sunlight.

And then there comes from the south a lone buck, lurching forward, bounding painfully on as a line of men break through the dust cloud, the swift and slight form of Kantu leading the way.

I don't wait. It's been long enough—too long. I cannot hold myself back and I am soon running hard, matching my pace to Kantu's as I follow the angle of the hill down toward the savannah. The lone gazelle pushes on, floundering through the grass, hot with the instinct to survive, jerking and kicking as he claws against fate and reaches for reserves of speed, hidden reservoirs of strength.

Kantu looks up. He spies me, a startled look on his face.

I know how I must be, how I must run. I must look light and grey, shimmering in the sun, running where no runner should have been. A ghost of the savannah.

On and on we run, my pace matching Kantu's, running slightly ahead of him but not looking back, keeping track of him in peripheral vision—running as though I had nothing to run for except myself, running as though I cared not who ran with me or whose eyes followed me from behind.

And still Kantu keeps up. I am proud of him suddenly, proud and delighted. Running with a ghost! Yes, Kantu is strong. Kantu is *brave*.

For half a day, he runs with me, across the hard earth of the savannah. Never whistling, never calling—just running side by side in silent accord, until the final moment at last arrives, and I cut across the gazelle's path, closing the fatal noose, then disappearing again into the dust and grass.

\* \* \*

While Kantu and the others butcher the gazelle, I lie down on the far side of a ridge, covering myself over in heaps of sweet dried grass. It would not do for a ghost to linger, or to get close enough to be touched or questioned.

My mud is flaking badly now, and I am breathing hard from the hunt. Such unghostlike traits! If Kantu saw me up close now, Secret Voice would surely whisper in his ear and show him what is under my disguise.

Even as I lie there in repose—stalks of grass tickling my cheeks, whirring locusts leaping and spinning around me—my heart beats as furiously as it has on any hunt. If Kantu does not act as I hope he will, then it will have all been in vain—! A day's hunting, for nothing, and not even any fruit gathered to feed Sedu and me—

But when the butchering is finished, Kantu and the other hunters disappear as expected, their footfalls fading into the distance as they carry the gazelle back to the village. At last, I scramble to my feet, heart in my mouth, and approach the bloody spot where they worked their flints.

As usual, every scrap of the creature has been cut up and carried off—even the viscera and bones have gone with the hunters back to camp, rolled up in the skin. But there—in the dark dust where the blood is already drying, sits an entire shank of the gazelle, the lower leg from the knee to the hoof, stripped of skin but still covered with muscle and meat.

It is an offering from Kantu to the ghost who helped with the hunt. When I see it, I cry out joyfully—and I laugh and laugh, all the way back to Sedu that night.

Days pass. Many days. The low places of the savannah dry out and the grass turns from green to gold, cracking and flaking in the wind. The river dwindles in size, the crocodiles wriggling only half covered by the water in the shallows by the reeds—and then gliding away altogether, tails switching behind them as they cruise northward toward other lands. Ibises and storks follow them, alone and in flocks, leaping high up into the clear air on broad beating wings, then silently passing away.

More days pass.

I wade farther out into the river to get my handfuls of mud. I run when I need to—hunting and playing the ghost, always only with Kantu's hunting party. And Kantu always leaves an offering for me. The truth is that we hunt better together. The truth is that I should hunt together with him always. Sedu too. Except—

"I cannot run," says Sedu.

I shake my head, as if to shake off her words. "A little more time," I say. But days have been passing. Days have been passing—

"No," says Sedu.

And I don't say anything back. I have seen her trying to run. It is not for lack of courage or effort. I have seen her face in pain, trying to break the toughness of her leg, trying to loosen again into the easy run that she had always been capable of.

It hurts her, I know. It hurts her body and it hurts her spirit. But she cannot do it. She cannot run anymore.

"You'll go back," says Sedu now. "You'll go back before they leave you here with me."

Now it is my turn to say no. But all I can do is shake my head, my mouth pressed shut. My eyes pressed shut. I brush the back of my hand against my face and wipe away the tears.

"Once they're gone," says Sedu, "there will be no more meat. What then?"

I look up angrily. "What then?" She is looking back at me, looking old now, serene and beautiful, but pale in the face. Looking like a ghost. "Yes, Sedu, what then? What will you do without me?"

She shakes her head slightly and smiles, her eyes turning up as she watches a line of flying ibises slip away to the north. "I'll go on," she says. "Another way."

\* \* \*

I don't go back, not even when the gazelle herds start to slip away too. The hunters come less often, and I know by the stars in the sky at night that the village must be breaking up. They are pulling down their houses and packing up their belongings, dividing the dried meat and other stores for the long walk back to the winter caves in the highlands.

I wait for Kantu to appear again. Two days, three days, four days. At last, I see him. Not hunting—not leading a party of men. But running alone, running by himself across the old hunting grounds where I have seen him so often.

Still, I cannot keep from falling in pace with him.

With no gazelle to capture his attention, he looks at me as we run. He whistles and calls my name. I stare straight ahead, still playing the ghost. Still running stone-faced and silent, because I don't know what else to do. He slows and comes to a stop behind me, and still I run on. I run on and on and on, his calls of my name growing fainter behind me.

Then he calls: "Loved one."

The lump in my breast suddenly rises into my throat. I'm helpless. I stop running—for him. I stand still—for him. In a few more minutes, he has caught up with me.

"Loved one," he says quietly, "I know you are no ghost."

My heart leaps. Did I even know that I wanted to hear that? But it feels dangerous, intoxicating. I feel myself peeling away from Sedu already. Is it so easy to betray a friend, I wonder? So easy to betray a sister?

"How did you know?" I ask at last.

Kantu smiles and takes my hand, brushing off the dried white mud to reveal the brown skin underneath. "Your hair, of course," he says with a laugh. "It grows longer and longer every time I see you."

I feel my cheeks redden and I look away. Then I look back. "I can't go back with you."

"Can't you?" he asks. His eyes are brown and wet, as always. His voice is deep, his chest broad. I shiver as he squeezes my hand.

"But Sedu . . ."

He nods, and I freeze. I had forgotten I was giving away her secret.

"I thought as much," says Kantu. "Let's go to her together."

We go, but when we arrive at the hollow, she is gone. Her footprints lead to the north.

We follow north, running easily. We follow the river and the gazelles, the storks and ibises, the elephants and crocodiles and aurochs. We follow Sedu's footprints when we can find them. And we follow the river when we cannot.

And not just Kantu and not just me. We are not alone.

The virgin hunters come as well, my little sister-daughters. And some of the younger men and women, some by themselves and some with their families. We bring our houses and belongings, our winter stores and our memories. Our hope for the future.

Yes, we have all agreed—the village has grown too large. There are too many of us in one place. For a long time, we've all known that if we are to continue to reproduce and grow and take up more space and food, sooner or later someone would have to find a new place for a new village. Someone would have to take the first step toward that unknown new destination.

So on the second day, we already know how to answer Sedu when we finally catch up with her—still slowly and resolutely walking toward the north, a stout branch hooked under her arm for support. "What are you doing here?" she asks us, half in irritation and half in relief.

"We are following you north," says Kantu in return.

And I—I take my strong and brave sister's hand and squeeze it in mine. At last, I can smile at her again with a feeling of something like hope and promise for the future.

"And this season," I tell her, "you will lead." ○

# OUR LADY OF THE OPEN ROAD

Sarah Pinsker

**One of Sarah Pinsker's most recent *Asimov's* tales, "The Low Hum of Her" (August 2014), has been reprinted in *How to Live on Other Planets: A Handbook for Aspiring Aliens*, which is an anthology of immigrant-experience SF. The title of her latest story was adapted from the name of a shrine on I-95. "Our Lady of the Highways," she tells us, "has probably inspired a song from every musician who has ever passed it." The tale is, in part, a love letter to her touring van.**

**T**he needle on the veggie oil tank read flat empty by the time we came to China Grove. A giant pink and purple fiberglass dragon loomed over the entrance, refugee from some shuttered local amusement park, no doubt; it looked more medieval than Chinese. The parking lot held a mix of Chauffeurs and manual farm trucks, but I didn't spot any other greasers, so I pulled in.

"Cutting it close, Luce?" Silva put down his book and leaned over to peer at the gauge.

"There hasn't been anything but farms for the last fifty miles. Serves me right for trying a road we haven't been down before."

"Where are we?" asked Jacky from the bed in the back of the van. I glanced in the rearview. He caught my eye and gave an enthusiastic wave. His microbraids spilled forward from whatever he'd been using to tether them, and he gathered them back into a thick ponytail.

Silva answered before I could. "Nowhere, Indiana. Go back to sleep."

"Will do." Without music or engine to drown him out, Jacky's snores filled the van again a second later. He'd been touring with us for a year now, so we'd gotten used to the snores. To be honest, I envied him his ability to fall asleep that fast.

I glanced at Silva. "You want to do the asking for once?"

He grinned and held up both forearms, tattooed every inch. "You know it's not me."

"There's such a thing as sleeves, you know." I pulled my windbreaker off the back of my seat and flapped it at him, even though I knew he was right. In the Midwest, approaching a new restaurant for the first time, it was never him, between the tattoos and the spiky blue hair. Never Jacky for the pox scars on his cheeks, even though they were clearly long healed. That left me.



My bad knee buckled as I swung from the driver's seat. I bent to clutch it and my lower back spasmed just to the right of my spine, that momentary pain that told me to rethink all my life's choices.

"What are you doing?" Silva asked through the open door.

"Tying my shoe." There was no need to lie, but I did it anyway. Pride or vanity or something akin. He was only two years younger than me, and neither of us jumped off our amps much anymore. If I ached from the drive, he probably ached, too.

The backs of my thighs were all pins and needles, and my shirt was damp with sweat. I took a moment to lean against Daisy the Diesel and stretch in the hot air. I smelled myself: not great after four days with no shower, but not unbearable.

The doors opened into a foyer, red and gold and black. I didn't even notice the blond hostess in her red qipao until she stepped away from the wallpaper.

"Dining alone?" she asked. Beyond her, a roomful of faces turned in my direction. This wasn't really the kind of place that attracted tourists, especially not these days, this far off the interstate.

"No, um, actually, I was wondering if I could speak to the chef or the owner? It'll only take a minute." I was pretty sure I had timed our stop for after their dinner rush. Most of the diners looked to be eating or pushing their plates aside.

The owner and chef were the same person. I'd been expecting another blond Midwesterner, but he was legit Chinese. He had never heard of a van that ran on grease. I did the not-quite-pleading thing. On stage I aimed for fierce, but in jeans and runners and a ponytail, I could fake a down-on-her-luck Midwest momma. The trick was not to push it.

He looked a little confused by my request, but at least he was willing to consider it. "Come to the kitchen door after we close and show me. Ten, ten thirty."

It was nine; not too bad. I walked back to the van. Silva was still in the passenger seat, but reading a trifold menu. He must have ducked in behind me to grab it. "They serve a bread basket with lo mein. And spaghetti and meatballs. Where are we?"

"Nowhere, Indiana." I echoed back at him.

We sat in the dark van and watched the customers trickle out. I could mostly guess from their looks which ones would be getting into the trucks and which into the Chauffeurs. Every once in a while, a big guy in work boots and a trucker cap surprised me by squeezing himself into some little self-driving thing. The game passed the time, in any case.

A middle-aged cowboy wandered over to stare at our van. I pegged him for a legit rancher from a distance, but as he came closer I noticed a clerical collar beneath the embroidered shirt. His boots shone and he had a paunch falling over an old rodeo belt; the incongruous image of a bull-riding minister made me laugh. He startled when he realized I was watching him.

He made a motion for me to lower my window.

"Maryland plates!" he said. "I used to live in Hagerstown."

I smiled, though I'd only ever passed through Hagerstown.

"Used to drive a church van that looked kinda like yours, too, just out of high school. Less duct tape, though. Whatcha doing out here?"

"Touring. Band."

"No kidding! You look familiar. Have I heard of you?"

"Cassir Fire," I said, taking the question as a prompt for a name. "We had it painted on the side for a while, but then we figured out we got pulled over less when we were incognito."

"Don't think I know the name. I used to have a band, back before . . ." His voice trailed off, and neither of us needed him to finish his sentence. There were several "back before" he could be referring to, but they all amounted to the same thing. Back before StageHolo and SportsHolo made it easier to stay home. Back before most people got scared out of congregating anywhere they didn't know everybody.

"You're not playing around here, are you?"

I shook my head. "Columbus, Ohio. Tomorrow night."

"I figured. Couldn't think of a place you'd play nearby."

"Not our kind of music, anyway," I agreed. I didn't know what music he liked, but this was a safe bet.

"Not any kind. Oh well. Nice chatting with you. I'll look you up on StageHolo."

He turned away.

"We're not on StageHolo," I called to his back, though maybe not loud enough for him to hear. He waved as his Chauffeur drove him off the lot.

"Luce, you're a terrible sales person," Silva said to me.

"What?" I hadn't realized he'd been paying attention.

"You know he recognized you. All you had to do was say your name instead of the band's. Or 'Blood and Diamonds.' He'd have paid for dinner for all of us, then bought every T-shirt and download code we have."

"And then he'd listen to them and realize the music we make now is nothing like the music we made then. And even if he liked it, he'd never go to a show. At best he'd send a message saying how much he wished we were on StageHolo."

"Which we could be . . ."

"Which we won't be." Silva knew better than to argue with me on that one. It was our only real source of disagreement.

The neon "open" sign in the restaurant's window blinked out, and I took the cue to put the key back in the ignition. The glowplug light came on, and I started the van back up.

My movement roused Jacky again. "Where are we now?"

I didn't bother answering.

As I had guessed, the owner hadn't quite understood what I was asking for. I gave him the engine tour, showing him the custom oil filter and the dual tanks. "We still need regular diesel to start, then switch to the veggie oil tank. Not too much more to it than that."

"It's legal?"

Legal enough. There was a gray area wherein perhaps technically we were skirting the fuel tax. By our reasoning, though, we were also skirting the reasons for the fuel tax. We'd be the ones who got in trouble, anyway. Not him.

"Of course," I said, then changed the subject. "And the best part is that it makes the van smell like egg rolls."

He smiled. We got a whole tankful out of him, and a bag full of food he'd have otherwise chucked out, as well.

The guys were over the moon about the food. Dumpster diving behind a restaurant or Superwall would have been our next order of business, so anything that hadn't made a stop in a garbage can on its way to us was haute cuisine as far as we were concerned. Silva took the lo mein—no complimentary bread—screwed together his travel chopsticks, and handed mine to me from the glove compartment. I grabbed some kind of moo shu without the pancakes, and Jacky woke again to snag the third container.

"Can we go someplace?" Silva asked, waving chopsticks at the window.

"Got anything in mind on a Tuesday night in the boonies?"

Jacky was up for something, too. "Laser tag? Laser bowling?"

Sometimes the age gap was a chasm. I turned in my seat to side-eye the kid. "One vote for lasers."

"I dunno," said Silva. "Just a bar? If I have to spend another hour in this van I'm going to scream."

I took a few bites while I considered. We wouldn't be too welcome anywhere around here, between our odor and our look, not to mention the simple fact that we

were strangers. On the other hand, the more outlets I gave these guys for legit fun, the less likely they were to come up with something that would get us in trouble. "If we see a bar or a bowling joint before someplace to sleep, sure."

"I can look it up," said Jacky.

"Nope," I said. "Leave it to fate."

After two thirds of the moo shu, I gave up and closed the container. I hated wasting food, but it was too big for me to finish. I wiped my chopsticks on my jeans and put them back in their case.

Two miles down the road from the restaurant, we came to Starker's, which I hoped from the apostrophe was only a bar, not a strip club. Their expansive parking lot was empty except for eight Chauffeurs, all lined up like pigs at a trough. At least that meant we didn't have to worry about some drunk crashing into our van on his way out.

I backed into the closest spot to the door. It was the best lit, so I could worry less about our gear getting lifted. Close was also good if the locals decided they didn't like our looks.

We got the long stare as we walked in, the one from old Westerns, where all the heads swivel our way and the piano player stops playing. Except, of course, these days the piano player didn't stop, because the piano player had no idea we'd arrived. The part of the pianist in this scenario was played by Roy Bittan, alongside the whole E Street Band, loud as a stadium and projected in StageHolo 3D.

"Do you want to leave?" Jacky whispered to me.

"No, it's okay. We're here now. Might as well have a drink."

"At least it's Bruce. I can get behind Bruce." Silva edged past me toward the bar.

A few at leasts: at least it was Bruce, not some cut-rate imitation. Bruce breathed punk as far as I was concerned, insisting on recording new music and legit live shows all the way into his eighties. At least it was StageHolo and not StageHoloLive, in which case there'd be a cover charge. I was willing to stand in the same room as the technology that was trying to make me obsolete, but I'd be damned if I paid them for the privilege. Of course, it wouldn't be Bruce on StageHoloLive, either; he'd been gone a couple of years now, and this Bruce looked to be only in his sixties, anyway. A little flat, too, which suggested this was a retrofitted older show, not one recorded using StageHolo's tech.

Silva pressed a cold can into my hand, and I took a sip, not even bothering to look at what I was drinking. Knowing him, knowing us, he'd snagged whatever had been cheapest. Pisswater, but cold pisswater. Perfect for washing down the greasy takeout food aftertaste.

I slipped into a booth, hoping the guys had followed me. Jacky did, carrying an identical can to mine in one hand, and something the color of windshield wiper fluid in a plastic shot glass in the other.

"You want one?" he asked me, nudging the windshield wiper fluid. "Bartender said it was the house special."

I pushed it back in his direction. "I don't drink anything blue. It never ends well."

"Suit yourself." He tossed it back, then grinned.

"Your teeth are blue now. You look like you ate a Smurf."

"What's a Smurf?"

Sometimes I forgot how young he was. Half my age. A lifetime in this business. "Little blue characters? A village with one chick, one old man, and a bunch of young guys?"

"Like our band?" He shook his head. "Sorry. Bad joke. Anyway, I have no idea what was in that food, but it might have been Smurf, if they're blue and taste like pork butt. How's your dinner sitting?"

I swatted him lightly, backhand. "Fine, as long as I don't drink anything blue."

He downed his beer in one long chug, then got up to get another. He looked at mine and raised his eyebrows.

"No thanks," I said. "I'll stick with one. I get the feeling this is a zero tolerance town."

If twenty-odd years of this had taught me one thing, it was to stay clear of local police. Every car in the parking lot was self-driving, which suggested there was somebody out on the roads ready to come down hard on us. Having spent a lot of time in my youth leaving clubs at closing time and dodging drunk drivers, I approved this effort. One of the few aspects of our brave new world I could fully endorse.

I looked around. Silva sat on a stool at the bar. Jacky stood behind him, a hand on Silva's shoulder, tapping his foot to the Bo Diddley beat of "She's the One." The rest of the bar stools were filled with people who looked too comfortable to be anything but regulars. A couple of them had the cocked-head posture of cheap neural overlays. The others played games on the slick touchscreen bar, or tapped on the Bracertabs strapped to their arms, the latest tech fad. Nobody talking to anybody.

Down at the other end, two blond women stood facing the Bruce holo, singing along and swaying. He pointed in their general direction, and one giggled and clutched her friend's arm as if he had singled her out personally. Two guys sat on stools near the stage, one playing air drums, the other watching the women. The women only had eyes for Bruce.

I got where they were coming from. I knew people who didn't like his voice or his songs, but I didn't know anybody, especially any musician, who couldn't appreciate his stage presence. Even here, even now, knowing decades separated me from the night this had been recorded, and decades separated the young man who had first written the song from the older man who sang it, even from across a scuzzy too-bright barroom, drinking pisswater beer with strangers and my own smelly band, I believed him when he sang that she was the one. I hated the StageHolo company even more for the fact I was enjoying it.

Somebody slid into the booth next to me. I turned, expecting one of my bandmates, but a stranger had sat down, closer than I cared for.

"Passing through?" he asked, looking at me with intense, bloodshot eyes. He brushed a thick sweep of hair from his forehead, a style I could only assume he had stuck with through the decades since it had been popular. He had dimples and a smile that had clearly been his greatest asset in his youth. He probably hadn't quite realized drinking had caught up with him, that he was puffy and red-nosed. Or that he slurred a bit, even on those two words.

"Passing through." I gave him a brief "not interested" smile and turned my whole body back toward the stage.

"Kind of unusual for somebody to pass through here, let alone bother to stop. What attracted you?" His use of the word "attracted" was pointed.

If he put an arm around me, I'd have to slug him. I shifted a few inches, trying to put distance between us, and emphasized my next word. "We wanted a drink. We've been driving a while."

His disappointment was evident. "Boyfriend? Husband?"

I nodded at the bar, letting him pick whichever he thought looked more like he might be with me, and whichever label he wanted to apply. It amused me either way, since I couldn't imagine being with either of them. Not at the beginning, and especially not after having spent all this time in the van with them.

Then I wondered why I was playing games at all. I turned to look at him. "We're a band."

"No kidding! I used to have a band." A reassessment of the situation flashed across his face. A new smile, more collegial. The change in his whole demeanor prompted me to give him a little more attention.

"No kidding?"

"Yeah. Mostly we played here. Before the insurance rates rose and StageHolo convinced Maggie she'd save money with holos of famous bands."

"Did she? Save money?"

He sighed. "Probably. Holos don't drink, and holos don't dent the mics or spill beers into the PA. And people will stay and imbibe for hours if the right bands are playing."

"Do you still play for fun? Your band?"

He shrugged. "We did for a while. We even got a spot at the very last State Fair. And after that, every once in a while we'd play a barbecue in somebody's backyard. But it's hard to keep it up when you've got nothing to aim for. Playing here once a week was a decent enough goal, but who would want to hear me sing covers when you can have the real thing?"

He pointed his beer at one of the women by the stage. "That's my ex-wife, by the way."

"I'm sorry?"

"It's okay." He took a swig of beer. "That's when Polly left me. Said it wasn't cause the band was done, but I think it was related. She said I didn't seem interested in anything at all after that."

He had turned his attention down to his drink, but now he looked at me again. "How about you? I guess there are still places out there to play?"

"A few," I said. "Mostly in the cities. There's a lot of turnover, too. So we can have a great relationship with a place and then we'll call back and they'll be gone without a trace."

"And there's enough money in it to live on?"

There are people who ask that question in an obnoxious, disbelieving way, and I tend to tell them, "We're here, aren't we?" but this guy was nostalgic enough that I answered him honestly. Maybe I could help him see there was no glamour left for people like us.

"I used to get some royalty checks from an old song, which covered insurance and repairs for the van, but they've gotten smaller and smaller since BMI v. Stage-Holo. We make enough to stay on the road, eat really terribly, have a beer now and again. Not enough to save. Not enough to stop, ever. Not that we want to stop, so it's okay."

"You never come off the road? Do you live somewhere?"

"The van's registered at my parents' place in Maryland, and I crash there when I need a break. But that isn't often."

"And your band?"

"My bassist and I have been playing together for a long time, and he's got places he stays. We replace a drummer occasionally. This one's been with us for a year, and the two of them are into each other, so if they don't fall out it might last a while."

He nodded. The wolfishness was gone, replaced by something more wistful. He held out his beer. "To music."

"To live music." My can clinked his.

Somebody shouted over by the bar, and we both twisted round to see what had happened. The air-drum player had wandered over—Max Weinberg was on break too—and he and Jacky were squaring off over something. Jacky's blue lips glowed from twenty feet away.

"Nothing good ever comes of blue drinks," I said to my new friend.

He nodded. "You're gonna want to get your friend out of here. That's the owner behind the bar. If your guy breaks anything, she'll have the cops here in two seconds flat."

"Crap. Thanks."

Blue liquid pooled around and on Jacky, a tray of overturned plastic shot glasses behind him. At least they weren't glass, and at least he hadn't damaged the fancy bar top. I dug a twenty from the thin wad in my pocket, hoping it was enough.

"You're fake-drumming to a fake band," Jacky was saying. "And you're not even good at it. If you went to your crash cymbal that much with the real Bruce, he'd fire you in two seconds."

"Who the hell cares? Did I ask you to critique my drumming?"

"No, but if you did, I'd tell you you're behind on the kick, too. My two-year-old niece keeps a better beat than you do."

The other guy's face reddened, and I saw him clench a fist. Silva had an arm across Jacky's chest by then, propelling him toward the door. We made eye contact, and he nodded.

I tossed my twenty on a dry spot on the bar, still hoping for a quick getaway.

"We don't take cash," said the owner, holding my bill by the corner like it was a dead rat.

Dammit. I squared my shoulders. "You're legally required to accept U.S. currency."

"Maybe true in the U.S. of A, but this is the U.S. of Starker's, and I only accept Superwallly credit. And your blue buddy there owes a lot more than this anyway for those spilled drinks." She had her hand below the bar. I had no clue whether she was going for a phone or a baseball bat or a gun; nothing good could come of any of those options.

I snatched the bill back, mind racing. Silva kept a credit transfer account; that wouldn't be any help, since he was already out the door. I avoided credit and devices in general, which usually held me in good stead, but I didn't think the label "Non-comm" would win me any friends here. Jacky rarely paid for anything, so I had no clue whether he had been paying cash or credit up until then.

"I've got them, Maggie." My new friend from the booth stepped up beside me, waving his phone.

He turned to me. "Go on. I've got this."

Maggie's hand came out from under the bar. She pulled a phone from behind the cash register to do the credit transfer, which meant whatever she had reached for down below probably wouldn't have been good for my health.

"Keep playing," he called after me.

Jacky was unremorseful. "He started it. Called us disease vectors. I told him to stay right where he was and the whole world would go on turning 'cause it doesn't even know he exists. Besides, if he can't air drum, he should just air guitar like everybody else."

Silva laughed. "You should have pretended to cough. He probably would have pissed himself."

He and Silva sprawled in the back together as I peeled out of the parking lot.

"Not funny. I don't care who started it. No fights. I mean it. Do you think I can afford to bail you out? How are we supposed to play tomorrow if our drummer's in jail? And what if they skip the jail part and shoot you? It's happened before."

"Sorry, Mom," Jacky said.

"Not funny," I repeated. "If you ever call me 'Mom' again I'm leaving you on the side of the road. And I'm not a Chauffeur. Somebody come up here to keep me company."

Silva climbed across the bed and bags and up to the passenger seat. He flipped on the police scanner, then turned it off after a few minutes of silence; nobody had put out any APBs on a van full of bill-ducking freaks. I drove speed limit plus five, same as the occasional Chauffeurs we passed ferrying their passengers home. Shortcutting onto the highway to leave the area entirely would've been my preference, but Daisy would have triggered the ramp sensors in two seconds flat; we hadn't been allowed on an interstate in five years.

After about twenty miles, my fear that we were going to get chased down finally dissipated and my heartbeat returned to acceptable rhythms. We pulled into an office park that didn't look patrolled.

"Your turn for the bed, Luce?" Jacky asked. Trying to make amends, maybe.

"You guys can have it if I can find my sleeping bag. It's actually pretty nice out, and then I don't have to smell whatever that blue crap is on your clothes."

"You have a sleeping bag?"

"Of course I do. I just used it in . . ." Actually, I couldn't think of when I had used it last. It took a few minutes of rummaging to find it in the storage space under the bed, behind Silva's garage sale box of pulp novels. I spread it on the ground just in front of the van. The temperature was perfect and the sky was full of stars. Hopefully there weren't any coyotes around.

I slept three or four hours before my body started to remind me why I didn't sleep outside more often. I got up to pee and stretch. When I opened the door, I was hit by an even deeper grease smell than usual. It almost drowned out the funk of two guys farting, four days unwashed. Also the chemical-alcohol-blue scent Jacky wore all over his clothes.

Leaning over the driver's seat, I dug in the center console for my silver pen and the bound atlas I used as a road bible. The stars were bright enough to let me see the pages without a flashlight. The atlas was about fifteen years out of date, but my notes kept it useable. The town we had called Nowhere was actually named Rackwood, which sounded more like a tree disease than a town to me. A glittery asterisk went next to Rackwood, and in the margin "China Grove—Mike Sun—grease AND food." I drew an X over the location of Starker's, which wouldn't get our repeat business.

I crawled inside around dawn, feeling every bone in my body, and reclined the passenger seat. Nobody knocked on the van to tell us to move on, so we slept until the sun started baking us. Jacky reached forward to offer up his last leftovers from the night before. I sniffed the container and handed it back to him. He shrugged and dove in with his fingers, chopsticks having disappeared into the detritus surrounding him. After a little fishing around, I found my dinner and sent that his way as well.

Silva climbed into the driver's seat. I didn't usually relinquish the wheel; I genuinely loved doing all the driving myself. I liked the control, liked to listen to Daisy's steady engine and the thrum of the road. He knew that, and didn't ask except when he really felt the urge, which meant that when he did ask, I moved over. Jacky had never offered once, content to read and listen to music in his back seat cocoon. Another reason he fit in well.

Silva driving meant I got a chance to look around; it wasn't often that we took a road I hadn't been down before. I couldn't even remember how we had wound up choosing this route the previous day. We passed shuttered diners and liquor stores, the ghost town that might have been a main street at one time.

"Where is everybody?" Jacky asked.

I twisted around to see if he was joking. "Have you looked out the window once this whole year? Is this the first time you're noticing?"

"I usually sleep through this part of the country. It's boring."

"There is no everybody," Silva said. "A few farmers, a Superwally that employs everyone else within an hour's drive."

I peered at my atlas. "I've got a distribution center drawn in about forty miles back and ten miles north, on the road we usually take. That probably employs anybody not working for the company store." There wasn't really any reason for me to draw that kind of place onto my maps, but I liked making them more complete. They had layers in some places, stores and factories that had come and gone and come and gone again.

Most backroad towns looked like this, these days. At best a fast food place, a feed store, maybe a run down looking grocery or a health clinic, and not much else. There'd be a Superwally somewhere between towns, as Silva had said, luring everyone even farther from center or anything resembling community. Town after town, we saw the same thing. And of course most people didn't see anything at all, puttering along on the self-driving highways, watching movies instead of looking out the windows, getting from point A to point B without stopping in between.

We weren't exactly doing our part either. It's not like we had contributed to the local economy. We took free dinner, free fuel. We contributed in other ways, but not in this town or the others we'd passed through the night before. Maybe someday someone here would book us and we'd come back, but until then we were passing through. Goodbye, Rackwood, Indiana.

"Next town has the World's Largest Salt Shaker." I could hear the capital letters in Jacky's voice. He liked to download tourist brochures. I approved of that hobby, the way I approved of supporting anything to make a place less generic. Sometimes we even got to stop at a few of the sights, when we could afford it and we weren't in a hurry. Neither of which was the case today.

"Another time," Silva said. "We slept later than we should have."

"I think we're missing out."

I twisted around to look at Jacky. He flopped across the bed, waving his phone like a look at the world's largest salt shaker might make us change our minds. "It's a choice between showers and salt shaker. You decide."

He stuffed his phone into his pocket with a sigh. Showers trumped.

About an hour outside Columbus, we stopped at a by-the-hour motel already starred in my atlas, and rented an hour for the glory of running water. The clerk took my cash without comment.

I let the guys go first, so I wouldn't have to smell them again after I was clean. The shower itself was nothing to write home about. The metal booth kind, no tub, nonexistent water pressure, seven minute shutoff; better than nothing. Afterward, I pulled a white towel from the previous hotel from my backpack to leave in the room, and stuffed one of the near-identical clean ones in my bag. The one I took might have been one I had left the last time through. Nobody ever got shorted a towel, and it saved me a lot of time in laundromats. I couldn't even remember who had taught me that trick, but I'd been doing it for decades.

We still had to get back in our giant grease trap, of course, now in our cleanish gig clothes. I opened all the windows and turned on the fan full blast, hoping to keep the shower scent for as long as possible. I could vaguely hear Jacky calling out visitor highlights for Columbus from the back, but the noise stole the meat of whatever he was saying. I stuck my arm outside and planed my hand against the wind.

I didn't intend to fall asleep, but I woke to Silva shouting "Whoa! Happy birthday, Daisy!" and hooting the horn. I leaned over to see the numbers clicking over from 99 999.

Jacky threw himself forward to snap a picture of the odometer as it hit all zeroes. "Whoa! What birthday is this?"

I considered. Daisy only had a five-digit odometer, so she got a fresh start every hundred thousand miles. "Eight, I think?"

Silva grinned. "Try again. My count says nine."

"Nine? I thought we passed seven on the way out of Seattle two years ago."

"That was five years ago. Eight in Asheville. I don't remember when."

"Huh. You're probably right. We should throw her a party at a million." I gave her dashboard a hard pat, like the flank of a horse. "Good job, old girl. That's amazing."



"Totally," said Jacky. "And can we play 'Our Lady of the Open Road' tonight? In Daisy's honor? I love that song. I don't know why we don't play it more often." He started playing the opening with his hands on the back of my seat.

"I'm on board," Silva agreed. "Maybe instead of 'Manifest Independence'? That one could use a rest."

"'Manifest Independence' stays," I said. "Try again."

"'Outbreak'?"

"Deal."

Jacky retreated to make the changes to the set list.

Our destination was deep in the heart of the city. Highways would have gotten us there in no time, not that we had that option. We drove along the river, then east past the decaying convention center.

We hadn't played this particular space before, but we'd played others, mostly in this same neighborhood of abandoned warehouses. Most closed up pretty quickly, or moved when they got shut down, so even if we played for the same crowd, we rarely played the same building twice.

This one, The Chain, sounded like it had a chance at longevity. It was a bike co-op by day, venue by night. Cities liked bike co-ops. With the right people running the place, maybe somebody who knew how to write grants and dress in business drag and shake a hand or two, a bike co-op could be part of the city plan. Not that I had any business telling anyone to sell themselves out for a few months of forced legitimacy.

Our timing was perfect. The afternoon bike repair class had just finished, so the little stage area was more or less clear. Better yet, they'd ordered pizza. Jacky had braved the Chinese leftovers, but Silva and I hadn't eaten yet. It took every ounce of my self-restraint to help haul in the instruments before partaking. I sent a silent prayer up to the pizza gods there'd still be some left for us once all our gear was inside.

I made three trips—guitars and gear, amp, swag to sell—then loaded up a paper plate with three pizza slices. I was entirely capable of eating all three, but I'd share with the guys if they didn't get their gear in before the food was gone. Not ideal dinner before singing, anyway; maybe the grease would trump the dairy as a throat coating. I sat on my amp and ate the first piece, watching Jacky and Silva bring in the drums, feeling only a little guilty. I had done my share, even if I hadn't helped anyone else.

The bike class stuck around. We chatted with a few. Emma, Rudy, Dijuan, Carter, Marin—there were more but I lost track of names after that. I gave those five the most attention in any case, since Rudy had been the one to book us, and Emma ran the programming for the bike co-op. We were there because of them. We talked politics and music and bikes. I was grateful not to have to explain myself again. These were our people. They treated us like we were coming home, not passing through.

More audience gradually trickled in, a good crowd for a Wednesday night. A mix of young and old, in varying degrees of punk trappings, according to their generation and inclination. Here and there, some more strait-laced, though they were as punk as anyone, in the truest spirit of the word, for having shown up at this space at all. Punk as a genre didn't look or sound like it used to, in any case; it had scattered to the wind, leaving a loose grouping of bands whose main commonality was a desire to create live music for live audiences.

The first band began to play, an all woman four piece called Moby K. Dick. They were young enough to be my kids, which meant young enough they had never known any scene but this one. The bassist played from a sporty little wheelchair, her back to the audience, like she was having a one-on-one conversation with the drummer's high hat. At first, I thought she was shy, but I gradually realized she was just really into the music. The drummer doubled as singer, hiding behind a curtain of dreadlocks that lifted and dropped back onto her face with every beat. They

played something that sounded like sea chanties done double time and double volume, but the lyrics were all about whales and dolphins taking revenge on people. It was pretty fantastic.

I gave all the bands we played with a chance to win me over. They were the only live music we ever got to hear, being on the road full time. The few friends we still had doing the same circuit were playing the same nights as us in other towns, rotating through; the others were doing StageHolo and we didn't talk much anymore. It used to be we'd sometimes even wind up in the same cities on the same night, so we'd miss each other and split the audience. That didn't happen much anymore with so few places to play.

Moby K. Dick earned my full attention, but the second band lost me pretty quickly. They all played adapted console-game instruments except the drummer. No strings, all buttons, all programmed to trigger samples. I'd seen bands like that before that were decent; this one was not my thing.

The women from the first band were hanging out by the drink cooler, so I made my way back there. I thrust my hand into the ice and came out with a water bottle. Most venues like this one were alcohol-free and all ages. There was probably a secret beer cooler hidden somewhere, but I wasn't in the mood to find it.

"I liked your stuff," I said to the bassist. Up close, she looked slightly older than she had on stage. Mid-twenties, probably. "My name's Luce."

She grinned. "I know! I mean, I'm Truly. And yes, that's really my name. Nice to meet you. And really? You liked it? That's so cool! We begged to be on this bill with you. I've been listening to Cassis Fire my whole life. I've got 'Manifest Independence' written on my wall at home. It's my mantra."

I winced but held steady under the barrage and the age implication. She continued. "My parents have all your music. They like the stuff with Marcia Januarie on drums best, when you had the second guitarist, but I think your current lineup is more streamlined."

"Thanks." I waited for her to point her parents out in the room, and for them to be younger than me. When she thankfully didn't volunteer that information, I asked, "Do you guys have anything recorded?"

"We've been recording our shows, but mostly we just want to play. You could take us on the road with you, if you wanted. Opening act."

She said the last bit jokingly, but I was pretty sure the request was real, so I treated it that way. "We used to be able to, but not these days. It's hard enough to keep ourselves fed and moving to the next gig. I'm happy to give you advice, though. Have you seen our van?"

Her eyes widened. She was kind of adorable in her enthusiasm. Part of me considered making a pass at her, but we only had a few minutes before I had to be onstage, and I didn't want to confuse things. Sometimes I hated being the responsible one.

"It's right outside. They'll find me when it's our turn to play. Come on."

The crowd parted for her wheelchair as we made our way through. I held the door for her and she navigated the tiny rise in the doorframe with practiced ease.

"We call her Daisy," I said, introducing Truly to the van. I searched my pockets for the keys and realized Silva had them. So much for that idea. "She's a fifteen seater, but we took out the middle seats for a bed and the back to make a cage for the drums and stuff so they don't kill us if we stop short."

"What's the mpg?" she asked. I saw her gears spinning as she tried to figure out logistics. I liked her focus. She was starting to remind me of me, though, which was the turnoff I needed.

I beckoned her to the hood, which popped by latch, no keys necessary. "That's the best part of all."

She locked her chair and pushed herself up to lean against Daisy's frame. At my look, she explained, "I don't need it all the time, but playing usually makes me pretty tired. And I don't like getting pushed around in crowds."

"Oh, that's cool," I said. "And if you buy a van of your own, that's one less conversion you'll have to make, if you can climb in without a lift. I had been trying to figure out if you'd have room for four people and gear and a chair lift."

"Nah, you can go back to the part where we wonder how I'm going to afford a van, straight up. Right now we just borrow my sister's family Chauffeur. It's just barely big enough for all our gear, but the mileage is crap and there's no room for clothes or swag or anything."

"Well, if you can find a way to pay for an old van like Daisy, the beauty of running on fry oil is the money you'll save on fuel. As long as you like takeout food, you get used to the smell . . ."

Silva stuck his head out the door, then came over to us. I made introductions. He unlocked the van; I saw Truly wince when the smell hit her. He reached under the bed, back toward the wheel well, and emerged with a bottle of whiskey in hand. Took a long swig, and passed it to me. I had a smaller sip, just enough to feel the burn in my throat, the lazy singer's warm-up.

Truly followed my lead. "Promise you'll give me pointers if I manage to get a van?"

I promised. The kid wasn't just like me; she practically was me, with the misfortune to have been born twenty years too late to possibly make it work.

I made Silva tap phones with her. "I would do it myself, but . . ."

"I know," she said. "I'd be Non-comm if I could, but my parents won't let me. Emergencies and all that."

Did we play extra well, or did it just feel like it? Moby K. Dick had helped; it was always nice to be reminded that what you did mattered. I had a mental buzz even with only a sip of whiskey, the combination of music and possibilities and an enthusiastic crowd eager to take whatever we gave them.

On a good night like this, when we locked in with each other, it was like I was a time traveler for an hour. Every night we'd ever played a song overlapped with every night we'd ever play it again, even though I was fully in the moment. My fingers made shapes, ran steel strings over magnets, ran signals through wires to the amplifier behind me, which blasted those shapes back over me in waves. Glorious, cathartic, bone-deep noise.

On stage, I forgot how long I'd been doing this. I could still be the kid playing in her parents' basement, or the young woman with the hit single and the major label, the one called the next Joan Jett, the second coming of riot grrl, not that I wanted to be the young version of me anymore. I had to work to remember that if I slid on my knees I might not get up again. I was a better guitar player now, a better singer, a better songwriter. I had years of righteous rage to channel. When I talked, I sometimes felt like a pissed off grump, stuck in the past. Given time to express it all in music, I came across better.

Moby K. Dick pushed through to the front when we played "Manifest Independence," singing along at the top of their lungs. They must have been babies when I released that song, but it might as well have been written for them. It was as true for them as it had been for me.

That was what the young punks and the old punks all responded to; they knew I believed what I was singing. We all shared the same indignation that we were losing everything that made us distinct, that nothing special happened anymore, that the new world replacing the old one wasn't nearly as good, that everyone was hungry and everything was broken and that we'd fix it if we could find the right tools. My job was to give it all a voice. Add to that the sweet old-school crunch of my Les Paul

played through Marshall tubes, Silva's sinuous bass lines, Jacky's tricky beats, and we could be the best live band you ever heard. Made sweeter by the fact that you had to be there to get the full effect.

We didn't have rehearsed moves or light shows or spotlights to hit like the Stage-Holos, but we knew how to play it up for the crowd. To make it seem like we were playing for one person, and playing for all of them, and playing just for them, because this night was different and would only ever happen once. People danced and pogoed and leaned into the music. A few of the dancers had ultraviolet tattoos, which always looked pretty awesome from my vantage point, a secret performance for the performers. I nudged Silva to look at one of them, a glowing phoenix spread wingtip to wingtip across a dancer's bare shoulders and arms.

A couple of tiny screens also lit the audience: people recording us with Bracertabs, arms held aloft. I was fine with that. Everyone at the show knew how it felt to be there; they'd come back, as long as there were places for us to play. The only market for a non-Holo recording was other people like this audience, and it would only inspire them to come out again the next time.

Toward the end of the set, I dedicated "Our Lady of the Open Road" to Daisy. At the tail of the last chorus, Jacky rolled through his toms in a way he never had before, cracking the song open wide, making it clear he wasn't coming in for a landing where he was supposed to. Silva and I exchanged glances, a wordless "this is going to be interesting," then followed Jacky's lead. The only way to do that was to make it bigger than usual, keep it going, make it a monster. I punched my gain pedal and turned to my amp to ride the feedback. Our lady of the open road, get me through another night.

Through some miracle of communication we managed to end the song together, clean enough that it sounded planned. I'd kill Jacky later, but at that moment I loved him. The crowd screamed.

I wiped the sweat out of my eyes with my shoulder. "We've got one more for you. Thanks so much for being here tonight." I hoped "Better to Laugh" wouldn't sound like an afterthought.

That was when the power went out.

"Police!" somebody shouted. The crowd began to push toward the door.

"Not the police!" someone else yelled. "Just a blackout."

"Just a blackout!" I repeated into the mic as if it were still on, then louder into the front row, hoping they were still listening to me. "Pass it on."

The message rippled through the audience. A tense moment passed with everyone listening for sirens, ready to scatter. Then they began to debate whether the blackout was the city or the building, whether the power bill had been paid, whether it was a plot to shut the place down.

Emma pushed her way through the crowd to talk to us. "They shut this neighborhood's power down whenever the circuits overload uptown. We're trying to get somebody to bring it up in city council. I'm so sorry."

I leaned in to give her a sweaty hug. "Don't worry about it. It happens."

We waited, hoping for the rock gods to smile upon us. The room started to heat up, and somebody propped the outside doors, which cooled things down slightly. After twenty minutes, we put our instruments down. At least we had made it through most of our set. I had no doubt the collective would pay us, and no concern people would say they hadn't gotten their money's worth. I dug the hotel towel out of my backpack to wipe my dripping face.

A few people made their way over to talk to us and buy T-shirts and patches and even LPs and download codes, even though you could find most of our songs free online. That was part of the beauty of these kids. They were all broke as hell, but they

still wanted to support us, even if it was just a patch or a pin or a password most of them were capable of hacking in two seconds flat. And they all believed in cash, bless them. We used the light of their phone screens to make change.

The girls from Moby K. Dick all bought T-shirts. Truly bought an LP as well—it figured she was into vinyl—and I signed it “To my favorite new band, good luck.” She wheeled out with her band, no parents in sight. I wondered if they’d decided they were too old for live music, then chided myself. I couldn’t have it both ways, mad that they were probably my age and mad that they weren’t there. Besides, they might have just left separately from their kid. I knew I must be tired if I was getting hung up on something like that.

“You look like you need some water,” somebody said to me in the darkness. A bottle pressed into my hand, damp with condensation.

“Thanks,” I said. “Though I don’t know how you can say I look like anything with the lights out.”

At that moment, the overheads hummed on again. I had left my guitar leaning face down on my amp, and it started to build up a squeal of feedback. I passed the bottle back, wiped my hands on my pants, and slammed the standby switch. The squeal trailed away.

“Sorry, you were saying?” I asked, returning to the stranger, who still stood with water in hand. I took it from her again. I thought maybe I’d know her in the light, but she didn’t look familiar. Mid-thirties, maybe, tall and tan, with a blandly friendly face, toned arms, Bracertab strapped to one forearm. She wore a Magnificent Beefeaters T-shirt with the sleeves cut off. We used to play shows with them before they got big.

“I was saying you looked like you were thirsty, by which I mean you looked like that before the lights went out, so I guessed you probably still looked like that after.”

“Oh.”

“Anyway, I wanted to say good show. One of your best I’ve seen.”

“Have you seen a lot?” It was a bit of a rude question, with an implication I didn’t recognize her. Bad for business. Everybody should believe they were an integral part of the experience. But really, I didn’t think I’d seen her before, and it wasn’t the worst question, unless the answer was she’d been following us for the last six months.

“I’ve been following you for the last six months,” she said. “But mostly live audience uploads. I was at your last Columbus show, though, and up in Rochester.”

Rochester had been a huge warehouse. I didn’t feel as bad.

“Thanks for coming. And, uh, for the water.” I tried to redeem myself.

“My pleasure,” she said. “I really like your sound. Nikki Kellerman.”

She held her arm out in the universal “tap to exchange virtual business cards” gesture.

“Sorry, I’m Non-comm,” I said.

She looked surprised, but I couldn’t tell if it was surprise that I was Non-comm, or that she didn’t know the term. The latter didn’t seem likely. I’d have said a third of the audience at our shows these days were people who had given up their devices and all the corporate tracking that went along with them.

She unstrapped the tablet, peeled a thin wallet off her damp arm, and drew a paper business card from inside it.

I read it out loud. “Nikki Kellerman, A & R, StageHolo Productions.” I handed it back to her.

“Hear me out,” she said.

“Okay, Artists & Repertoire. You can talk at me while I pack up.”

I opened the swag tub and started piling the T-shirts back into it. Usually we took the time to separate them by size so they’d be right the next time, but now I tossed them in, hoping to get away as soon as possible.

"As you probably know, we've been doing very well with getting StageHolo into venues across the country. Bringing live music into places that previously didn't have it."

"There are about seven things wrong with that statement," I said without looking up.

She continued as if I hadn't spoken. "Our biggest selling acts are arena rock, pop, rap, and Spanish pop. We now reach nine in ten bars and clubs. One in four with StageHolo AtHome."

"You can stop the presentation there. Don't you dare talk to me about StageHolo AtHome." My voice rose. Silva stood in the corner chatting with some bike kids, but I saw him throw a worried look my way. "'All the excitement of live entertainment without leaving your living room.' 'Stay AtHome with John Legend tonight.'"

I clapped the lid onto the swag box and carried it to the door. When I went to pack up my stage gear, she followed.

"I think you're not understanding the potential, Luce. We're looking to diversify, to reach new audiences: punk, folk, metal, musical theater." She listed a few more genres they hadn't completely destroyed yet.

I would punch her soon. I was not a violent person, but I knew for a fact I would punch her soon. "You're standing in front of me, asking me to help ruin my livelihood."

"No! Not ruin it. I'm inviting you to a better life. You'd still play shows. You'd still have audiences."

"Audiences of extras paid to be there? Audiences in your studios?" I asked through clenched teeth.

"Yes and no. We can set up at your shows, but that's harder. Not a problem in an arena setting, but I think you'd find the 3D array distracting in a place like this. We'd book you some theaters, arenas. Fill in the crowds if we needed to. You could still do this in between if you wanted, but . . ." she shrugged to indicate she couldn't see why I would want.

"Hey, Luce. A little help over here?" I looked down to see my hands throttling my mic instead of putting it back in its box. Looked up at Silva struggling to get his bass amp on the dolly, like he didn't do it on his own every night of the week. Clearly an offer of rescue.

"Gotta go," I said to the devil's A & R person. "Have your people call my people."

Turning the bass rig into a two-person job took all of our acting skills. We walked to the door in exaggerated slow motion. Lifting it into the van genuinely did take two, but usually my back and knee ruled me out. I gritted my teeth and hoisted.

"What was that about?" Silva asked, shutting Daisy's back hatch and leaning against it. "You looked like you were going to tear that woman's throat out with your teeth."

"StageHolo! Can you believe the nerve? Coming here, trying to lure us to the dark side?"

"The nerve," he echoed, shaking his head, but giving me a funny look. He swiped an arm across his sweaty forehead, then pushed off from the van.

I followed him back inside. Nikki Kellerman was still there.

"Luce, I think you're not seeing everything I have to offer."

"Haven't you left yet? That was a pretty broad hint."

"Look around." She gestured at the near-empty room.

I stared straight at her. I wasn't dignifying her with any response.

"Luce, I know you had a good crowd tonight, but are there people who aren't showing up these days? Look where you are. Public transit doesn't run into this neighborhood anymore. You're playing for people who squat in warehouses within a few blocks, and then people who can afford bikes or Chauffeurs."

"Most people can scrounge a bicycle," I said. "I've never heard a complaint about that."

"You're playing for the people who can bike, then. That bassist from the first band, could she have gotten here without a car?"

For the first time, I felt like she was saying something worth hearing. I sat down on my amp.

"You're playing for this little subset of city punks for whom this is a calling. And after that you're playing for the handful of people who can afford a night out and still think of themselves as revolutionary. And that's fine. That's a noble thing. But what about everybody else? Parents who can't afford a sitter? Teens who are too young to make it here on their own, or who don't have a way into the city? There are plenty of people who love music and deserve to hear your message. They just aren't fortunate enough to live where you're playing. Wouldn't you like to reach them too?"

Dammit, dammit, dammit, she had a decent point. I thought about the guy who had paid for our drinks the night before, and the church van guy from outside the Chinese restaurant, and Truly if she didn't have a sister with a car.

She touched her own back. "I've seen you after a few shows now, too. You're amazing when you play, but when you step off, I can see what it takes. You're tired. What happens if you get sick, or if your back goes out completely?"

"I've always gotten by," I said, but not with the same vehemence as a minute before.

"I'm just saying you don't have to get by. You can still do these shows, but you won't have to do as many. Let us help you out. I can get you a massage therapist or a chiropractor or a self-driving van."

I started to protest, but she held up her hands in a placating gesture. "Sorry—I know you've said you love your van. No offense meant. I'm not chasing you because my boss wants me to. I'm chasing you because I've seen you play. You make great music. You reach people. That's what we want."

She put her card on the amp next to me, and walked out the front of the club. I watched her go.

"Hey Luce," Jacky called to me. I headed his way, slowly. My back had renewed its protest.

"What's up?" I asked.

He gestured at the bike kids surrounding him, Emma and Rudy and some more whose names I had forgotten. Marina? Marin. I smiled. I should have spent more time with them, since they were the ones who had brought us in.

"Our generous hosts have offered us a place to stay nearby. I said I thought it was a good idea, but you're the boss."

They all looked at me, waiting. I hadn't seen the money from the night yet. It would probably be pretty good, since this kind of place didn't take a cut for themselves. They were in it for the music. And for the chance to spend some time with us, which I was in a position to provide.

"That sounds great," I said. "Anything is better than another night in the van." We might be able to afford a hotel, or save the hotel splurge for the next night, in—I mentally checked the roadmap—Pittsburgh.

With the bike kids' help, we made quick work of the remaining gear. Waited a little longer while Rudy counted money and handed it over to me with no small amount of pride.

"Thank you," I said, and meant it. It had been a really good show, and the money was actually better than expected. "We'll come back here anytime."

Just to prove it, I pulled my date book from my backpack. He called Emma over, and together we penned in a return engagement in three months. I was glad to work with people so competent; there was a good chance they'd still be there in three months.

We ended up at a diner, van parked in front, bikes chained to the fence behind it, an unruly herd.

I was so tired the menu didn't look like English; then I realized I was looking at the Spanish side.

"Is there a fridge at the place we're staying?" Silva asked.

Smart guy. Emma nodded. Silva and Jacky and I immediately ordered variations on an omelet theme, without looking further at either side of the menu. The beauty of omelets: you ate all the toast and potatoes, wrapped the rest, and the eggs would still taste fine the next day. Two meals in one, maybe three, and we hadn't had to hit a dumpster in two full days.

Our hosts were a riot. I barely kept my eyes open—at least twice I realized they weren't—but Emma talked about Columbus politics and bikes and greenspaces with a combination of humor and enthusiasm that made me glad for the millionth time for the kind of places we played, even if I didn't quite keep up my end of the conversation. Nikki Kellerman could flush herself down the toilet. I wouldn't trade these kids for anything.

Until we saw the place on offer. After the lovely meal, after following their bikes at bike speed through unknown and unknowable dark neighborhoods, Silva pulled the van up. The last portion had involved turning off the road along two long ruts in grass grown over a paved drive. I had tried to follow in my atlas on the city inset, but gave up when the streets didn't match.

"Dude," I said, opening my eyes. "What is that?"

We all stared upward. At first glance it looked like an enormous brick plantation house, with peeling white pillars supporting the upper floors. At second, maybe some kind of factory.

"Old barracks," said Jacky, king of local tourist sites. "Those kids got themselves an abandoned fort."

"I wonder if it came with contents included." Silva mimed loading a rifle. "Bike or die."

I laughed.

Jacky leaned into the front seat. "If you tell me I have to haul in my entire kit, I swear to god I'm quitting this band. I'll join the bike militia. Swear to god."

I peered out the windows, but had no sense of location. "Silva?"

"I can sleep in the van if you think I should."

It was a generous offer, given that actual beds were in the cards.

"You don't have to do that," I decided. "We'll take our chances."

I stopped at the back gate for my guitar, in the hopes of having a few minutes to play in the morning. Silva did the same. We shouldered instruments and backpacks, and Jacky took the three Styrofoam boxes with our omelets. The bike kids waited in a cluster by an enormous door. We staggered their way.

"So who has the keys?" Silva asked.

Emma grinned. "Walk this way."

The big door was only for dramatic effect. We went in through a small, unlocked door on the side. It looked haphazardly placed, a late addition to the architecture. A generator hummed just outside the door, powering a refrigerator, where we left our leftovers. I hoped it also powered overhead lights, but the bike kids all drew out halogen flashlights as soon as we had stored the food.

The shadows made everything look ominous and decrepit; I wasn't sure it wouldn't look the same in daylight. Up a crumbling staircase, then a second, to a smaller third floor. Walls on one side, railing on the other, looking down over a central core, all black. Our footsteps echoed through the emptiness. In my tired state, I imagined being told to bed down in the hallway, sleeping with my head pressed to the floor. If they didn't stop soon, I might.



We didn't have to go further. Emma swung open an unmarked door and handed me her flashlight. I panned it over the room. A breeze wafted through broken glass. An open futon took up most of the space, a threadbare couch sagging beneath the window. How those things had made it up to this room without the stairs falling away entirely was a mystery, but I had never been so happy to see furniture in my entire life.

I dropped my shoulder and lowered my guitar to the floor. The bike kids stared at us and we stared back. Oh god, I thought. If they want to hang out more, I'm going to cry.

"This is fantastic," said Silva, the diplomat. "Thank you so much. This is so much better than sleeping in the van."

"Sweet. *Hasta mañana!*" said Rudy, his spiky head bobbing. They backed out the door, closing it behind them, and creaked off down the hallway.

I sank into the couch. "I'm not moving again," I said.

"Did they say whether they're renting or squatting? Is anybody else getting a jail vibe?" Jacky asked, flopping back onto the futon.

Silva opened the door. "We're not locked in." He looked out into the hallway and then turned back to us. "But, uh, they're gone without a trace. Did either of you catch where the bathroom was?"

I shook my head, or I think I did. They were on their own.

The night wasn't a pleasant one. I woke once to the sound of Silva pissing in a bottle, once to a sound like animals scratching at the door, once to realize there was a spring sticking through the couch and into my thigh. The fourth time, near eight in the morning, I found myself staring at the ceiling at a crack that looked like a rabbit. I turned my head and noticed a cat pan under the futon. Maybe it explained the scratching I had heard earlier.

I rolled over and stood up one vertebra at a time. Other than the spring, it hadn't been a bad couch. My back felt better than the night before. I grabbed my guitar and slipped out the door.

I tried to keep my steps from echoing. With the first daylight streaming in through the jagged windows, I saw exactly how dilapidated the place was, like it had been left to go feral. I crept down to the first floor, past a mural that looked like a battle plan for world domination, all circles and arrows, and another of two bikes in carnal embrace. Three locked doors, then I spotted the fridge and the door out. Beyond this huge building there were several others of similar size, spread across a green campus. Were they all filled with bike kids? It was a pleasant thought. I'd never seen any place like this. I sat down on the ground, my back against the building, in the morning sunshine.

It was nice to be alone with my guitar. The problem with touring constantly was we were always driving, always with people, always playing the same songs we already knew. And when we did have down time, we'd spend it tracking down new gigs, or following up to make sure the next places still existed. The important things like writing new songs fell to last on the list.

This guitar and I, we were old friends. The varnish above her pick guard had worn away where I hit it on the downstroke. Tiny grooves marked where my fingers had indented the frets. She fit my hands perfectly. We never talked anymore.

She was an old Les Paul knockoff, silver cloudburst except where the bare wood showed through. Heavy as anything, the reason why my back hurt so constantly. The hunch of my shoulder as I bent over her was permanent. And of course with no amp she didn't make any sound beyond string jangle. Still, she felt good.

I didn't need to play the songs we played every night, but my fingers have always insisted on playing through the familiar before they can find new patterns. I played some old stuff, songs I loved when I was teaching myself to play, Frightwig and the Kathleen Battle School and disappear fear, just to play something I could really feel.

Then a couple of bars of “She’s the One,” then what I remembered of a Moby K. Dick whale song. I liked those kids.

When I finally hit my brain’s unlock code, it latched onto a twisty little minor descent. The same rhythm as the whale song, but a different progression, a different riff. A tiny theft, the kind all musicians make. There was only so much original to do within twelve notes. Hell, most classic punk was built on a couple of chords. What did Lou Reed say? One chord is fine, two chords is pushing it, three chords you’re into jazz?

I knew what I was singing about before I even sang it. That StageHolo offer, and the idea of playing for a paid audience night after night, the good and the bad parts. The funny thing about bargains with the devil was you so rarely heard about people turning him down; maybe sometimes it was worth your soul. I scrambled in my gig bag pocket for a pen and paper. When I came up with only a sharpie, I wrote the lyrics on my arm. The chords would keep. I’d remember them. Would probably remember the lyrics too, but I wasn’t chancing it.

Silva stepped out a little while later, wearing only a ratty towel around his waist. “There’s a bucket shower out the back!”

“Show me in a sec, but first, check it out.” I played him what I had.

His eyes widened. “Be right back.”

He returned a moment later wearing jeans, bass in hand. We both had to play hard, and I had to whisper-sing to hear the unplugged electric instruments, but we had something we both liked before long.

“Tonight?” he asked me.

“Maybe . . . depends on how early we get there, I guess. And whether there’s an actual soundcheck. Do you remember?”

He shook his head. “Four band lineup, at a warehouse. That’s all I remember. But maybe if we leave pretty soon, we can set up early? It’s only about three hours, I think.”

He showed me where the shower was, and I took advantage of the opportunity. The bike kids appeared with a bag of lumpy apples, and we ate the apples with our omelets, sitting on the floor. Best breakfast in ages. They explained the barracks—the story involved an arts grant and an old school and abandoned buildings and a cat sanctuary and I got lost somewhere along the way, working on my new song in my head.

After breakfast, we made our excuse that we had to get on the road. They walked us back the way we came, around the front.

My smile lasted as long as it took us to round the corner. As long as it took to see Daisy was gone.

“Did you move her, Jacky?” Silva asked.

“You’ve got the keys, man.”

Silva patted his pockets, and came up with the key. We walked closer. Glass.

I stared at the spot, trying to will Daisy back into place. Blink and she’d be back. How had we let this happen? I went through the night in my head. Had I heard glass breaking, or the engine turning over? I didn’t think so. How many times had we left her outside while we played or ate or showered or slept? I lay down on the path, away from the glass, and looked up at the morning sky.

The bike kids looked distraught, all talking at once. “This kind of thing never happens.” “We were only trying to help.”

“It wasn’t your fault,” I said, after a minute. Then louder, when they didn’t stop. “It wasn’t your fault.” They closed their mouths and looked at me.

I sat up and continued, leaning back on my hands, trying to be the calm one, the adult. “The bad news is we’re going to need to call the police. The good news is, you’re not squatting, so we don’t have to work too hard to explain what we were doing here. The bad news is whoever stole the van can go really far on that tank. The good news is they’re probably local and aren’t trying to drive to Florida. Probably just kids who’ve

never gotten to drive something that didn't drive itself. They'll abandon her nearby when she runs out of gas." I was trying to make myself feel better as much as them.

"And maybe they hate Chinese food," Jacky said. "Or maybe the smell'll make them so hungry they have to stop for Chinese food. We should try all the local Chinese food places first."

Silva had stepped away from the group, already on the phone with the police. I heard snippets, even though his back was turned. License plate. Yes, a van. Yes, out of state plates. No, he didn't own it, but the owner was with him. Yes, we'd wait. Where else did we have to go? Well, Pittsburgh, but it didn't look like we'd be getting there any time soon.

He hung up and dug his hands into his pockets. He didn't turn around or come back to the group. I should probably have gone over to him, but he didn't look like he wanted to talk.

The kids scattered before the police arrived, all but Emma disappearing into the building. Jacky walked off somewhere as well. It occurred to me I didn't really know much of his history for all the time we'd been riding together.

The young policewoman who arrived to take our report was standoffish at first, like we were the criminals. Emma explained the situation. No officer, not squatting, here are the permits. I kept the van registration and insurance in a folder in my backpack, which helped on that end too, so that she came over to our side a little. Just a little.

"Insurance?"

"Of course." I rustled in the same folder, presented the card to her. She looked surprised, and I realized she had expected something electronic. "But only liability and human driver."

Surprised her again. "So the van isn't self-driving?"

"No, ma'am. I've had her—it—for twenty-three years."

"But you didn't convert when the government rebates were offered?"

"No, ma'am. I love driving."

She gave me a funny look.

"Was anything in the van?" she asked.

I sighed and started the list, moving from back to front.

"One drum kit, kind of a hodgepodge of different makes, Ampeg bass rig, Marshall guitar amp, suitcase full of gig clothes. A sleeping bag. A box of novels, maybe fifty of them. Um, all the merchandise: records and T-shirts and stuff to sell . . ." I kept going through all the detritus in my head, discarding the small things: collapsible chopsticks, restaurant menus, pillows, jackets. Those were all replaceable. My thoughts snagged on one thing.

"A road atlas. Rand McNally."

The officer raised her eyebrows. "A what?"

"A road atlas. A book of maps."

"You want me to list that?"

"Well, it's in there. And it's important, to me anyway. It's annotated. All the places we've played, all the places we like to stop and we don't." I tried to hide the hitch in my voice. Don't cry, I told myself. Cry over the van, if you need to. Not over the atlas. You'll make another. It might take years, but it could be done.

It wasn't just the atlas, obviously. Everything we had hadn't been much, and it was suddenly much less. I was down to the cash in my pocket, the date book, the single change of clothes in my backpack, my guitar. How could we possibly rebuild from there? How do you finish a tour without a van? Or amps, or drums?

The officer held out her phone to tap a copy of her report over to me.

"Non-comm," I said. "I'm so sorry."

Silva stepped in for the first time. He hadn't even opened his mouth to help me list stuff, but now he held up his phone. "Send it to me, officer."

She did, with a promise to follow up as soon as she had any leads. Got in her squad car. She had to actually use the wheel and drive herself back down the rutted path; I guessed places like this were why police cars had a manual option. She had probably written us off already, either way.

I turned to Silva, but he had walked off. I followed him down the path toward an old warehouse.

"Stop!" I said, when it was clear he wasn't going to. He turned toward me. I expected him to be as sad as me, but he looked angrier than I had ever seen him, fists clenched and jaw tight.

"Whoa," I said. "Calm down. It'll be okay. We'll figure something out."

"How? How, Luce?"

"They'll find Daisy. Or we'll figure something out."

"Daisy's just the start of it. It's amps and records and T-shirts and everything we own. I don't even have another pair of underwear. Do you?"

I shook my head. "We can buy..."

"We can buy underwear at the Superwally. But not all that other stuff. We can't afford it. This is it. We're done. Unless."

"Unless?"

He unclenched his left fist and held out a scrap of paper. I took it from him and flattened it. Nikki Kellerman's business card, which had been on my amp when I last saw it.

"No," I said.

"Hear me out. We have nothing left. Nothing. You know she'd hook us up if we called now and said we'd sign. We'd get it all back. New amps, new merch, new stage clothes. And we wouldn't need a new van if we were doing holo shows. We could take a break for a while."

"Are you serious? You'd stay in one place and do holo shows?" I waited for an answer. He stomped at a piece of glass in the dirt, grinding it with his boot heel. "We've been playing together for twenty years and I wouldn't have guessed you'd ever say yes to that."

"Come off it, Luce. You know I don't object the way you do. You know that, or you'd have run it past me before turning her down. I know we're not a democracy, but you used to give me at least the illusion I had a choice."

I bit my lip. "You're right. I didn't run it past you. And actually, I didn't turn her down in the end. I didn't say yes, but she said some stuff that confused me."

That stopped him short. Neither of us said anything for a minute. I looked around. What a weird place to be having this fight; I always figured it would come, but in the van. I waited for a response, and when none came, I prodded. "So you're saying that's what you want?"

"No! Maybe. I don't know. It doesn't always seem like the worst idea. But now I don't think we have another option. I think I could have kept going the way we were for a while longer, but rebuilding from scratch?" He shook his head, then turned and walked away again. I didn't follow this time.

Back at the building where we had stayed, the bike kids had reappeared, murmuring amongst themselves. Jacky leaned against the front stoop, a few feet from them. I sat down in the grass opposite my drummer.

"What do you think of StageHolo? I mean really?"

He spit on the ground.

"Me too," I agreed. "But given the choice between starting over with nothing, and letting them rebuild us, what would you do? If there weren't any other options."

He ran a hand over his braids. "If there weren't any other options?"

I nodded.

"There are always other options, Luce. I didn't sign up with you to do fake shows in some fake warehouse for fake audiences. I wouldn't stay. And you wouldn't last."

I pulled a handful of grass and tossed it at him.

He repeated himself. "Really. I don't know what you'd do. You wouldn't be you anymore. You'd probably still come across to some people, but you'd have the wrong kind of anger. Anger for yourself, instead of for everybody. You'd be some hologram version of yourself. No substance."

I stared at him.

"People always underestimate the drummer, but I get to sit behind you and watch you every night. Trust me." He laughed, then looked over my shoulder. "I watch you, too, Silva. It goes for you, too."

I didn't know how long Silva had been behind me, but he sat down between us now, grunting as he lowered himself to the ground. He leaned against Jacky and put his grimy glass-dust boots in my lap.

I shoved them off. "That was an old man grunt."

"I'm getting there, old lady, but you'll get there first. Do you have a plan?"

I looked over where the bike kids had congregated. "Hey, guys! Do any of you have a car? Or, you know, know anybody who has a car?"

The bike kids looked horrified, then one—Dijuan?—nodded. "My sister has a Chauffeur."

"Family sized?"

Dijuan's face fell.

Back to the drawing board. Leaning back on my elbows, I thought about all the other bands we could maybe call on, if I knew anybody who had come off the road, who might have a van to sell if Daisy didn't reappear. Maybe, but nobody close enough to loan one tonight. Except . . .

"You're not saying you're out, right?" I asked Silva. "You're not saying StageHolo or nothing? 'Cause I really can't do it. Maybe someday, on our terms, but I can't do it yet."

He closed his eyes. "I know you can't. But I don't know what else to do."

"I do. At least for tonight."

I told him who to call.

Truly arrived with her sister's family-sized Chauffeur an hour later. We had to meet her up on the road.

"It'll be a tight squeeze, but we'll get there," she said. The third row and all the foot space was packed tight with the Moby K. Dick amps and drums and cables.

"Thank you so much," I said, climbing into what would be the driver's seat if it had a wheel or pedals. It felt strange, but oddly freeing as the car navigated its way from wherever we were toward where we were going.

I was supposed to be upset. But we had a ride to the gig, and gear to play. We'd survive without merch for the time being. Somebody in Pittsburgh would help us find a way to Baltimore if Daisy hadn't been found by then, or back to Columbus to reclaim her.

With enough time to arrange it, the other bands would let us use their drums and amps at most of the shows we had coming up, and in the meantime we still had our guitars and a little bit of cash. We'd roll on, in Daisy or a Chauffeur, or on bikes with guitars strapped to our backs. No StageHolo gig could end this badly; this was the epic, terrible, relentlessness of life on the road. We made music. We were music. We'd roll on. We'd roll on. We'd roll on. ○

# NEXT ISSUE

## JULY ISSUE

Our July 2015 issue is for you, if you're looking for a hard-SF novella about alien life cycles that evolve to incorporate time travel. These aliens, plus the dangerous consequences of love, war, mystery, and betrayal, will be found in Asimov's Readers' Award winner **Derek Künsken's** "Pollen From a Future Harvest."

## ALSO IN JULY

Multiple Hugo-Award-winning author **Mary Robinette Kowal** gives us a suspenseful tale about a scientist whose survival depends on acting "Like Native Things"; noted screenwriter and Hugo- and Nebula-Award winning author **David Gerrold's** first story for *Asimov's* is a delightfully droll novelette about "The Great Pan American Airship Mystery, or, Why I Murdered Robert Benchley"; beware the "Petroglyph Man" in **Rudy Rucker's** zany new tale, which comes complete with artwork by the author; and **Will Ludwigsen** escorts us to an eerie television studio set of the past for a heartfelt look at what could be in "Acres of Perhaps."

## OUR EXCITING FEATURES

**Robert Silverberg** reveals the arcane wisdom of the ancient Anglo-Saxons in "Reflections: Leechdoms, Wortcunning, Starcraft"; **Paul Di Filippo's** On Books discusses works by Nancy Kress, Jack McDevitt, Cherie Priest, Ysabeau Wilce, and others; plus we'll have an array of poetry and other features you're sure to enjoy; Look for our July issue on sale at newsstands on May 26, 2015. Or subscribe to *Asimov's*—in paper format or in downloadable varieties—by visiting us online at [www.asimovs.com](http://www.asimovs.com). We're also available individually or by subscription on *Amazon.com's* Kindle and Kindle Fire, and *BarnesandNoble.com's* Nook, as well as from [magzter.com/magazines](http://magzter.com/magazines), Google Play, and Kobo's digital newsstand!

## COMING SOON

new stories by **Paul McAuley**, **Karl Bunker**, **Kristine Kathryn Rusch**, **Will McIntosh**, **Nick Wolven**, **Kelly Robson**, **Sandra McDonald**, **Rick Wilber**, **Daryl Gregory**, **Sam J. Miller**, **Alan Smale**, **Brenda Cooper**, **Vylar Kaftan**, and many others!

**ROGUES****Edited by George R.R. Martin****and Gardner Dozois****Bantam, \$30.00 (hc)****ISBN: 978-0-345-53726-3**

**H**ere's a generous (832 pp.) collection of what academic critics would probably call "picaresque" tales, which have the common feature that their protagonists lack most of the usual heroic qualities, but nonetheless manage to hold the reader's attention very nicely. Rogues, in other words—a type of character many of us find likable in stories, though we might want to button up our wallet pockets if we found them sitting across a barroom table from us.

The list of authors is a good indication of the quality of the wares: among the contributors are Neil Gaiman, Matthew Hughes, Joe R. Lansdale, Cherie Priest, Michael Swanwick, Walter John Williams, and Connie Willis. The book concludes with a work by Martin, a typically dark piece of background to his bestselling *Ice and Fire* series. And while some of the stories draw on settings or characters the authors have previously used, all are original. They represent a broad range of genres, from sword and sorcery to urban fantasy to SF to thrillers to noir mystery to horror.

Martin also provides the introduction to the volume, a brief survey of the appeal of grey protagonists. He begins with TV and film characters, from the western anti-heroes played by the likes of James Garner and Clint Eastwood to Harrison Ford's long list of amiable "bad boy" roles, then moves on to literary examples, from Fritz Leiber's Fafhrd and the Grey Mouser to Jack Vance's Cugel the Clever, not to forget the likes of Rhett Butler, Harry Flashman, and the many examples from western, mystery, and other fiction genres.

The real meat of the anthology is the stories, of course. The action begins with Joe Abercrombie's "Tough Times All Over," set in a sword-and-sorcery city where the protagonist is robbed of a mysterious package she is carrying. The rest of the story follows the course of the "McGuffin" as it is stolen or extorted from one character after another, with each new character showing some new aspect of this city of rogues—it hardly matters where it ends up, the journey is so much fun.

In contrast, David W. Ball's "Provenance" is set in the modern era, roughly from pre-World War II Germany to the present. The protagonist is Max Wolff, an art expert asked to help sell a painting of questionable provenance. The story then traces the painting, which Wolff recognizes as a lost masterpiece, through the many who have owned it, or sought to own it. The story weaves back and forth in time, following the painting from a televangelist to an SS officer to a South American drug lord—with the ultimate surprise of its true provenance the final revelation of the story.

Authors more familiar to the SF/fantasy reader are also in good form here. Walter John Williams' story, "Diamonds from Tequila," has a contemporary venue, a Mexican film set where the protagonist is starring in a thriller about the drug trade. A death on the set involves the authorities, and eventually leads to deeper and more sinister revelations—with the final twist a nice bit of poetic justice—as is the case in many of the volume's stories. Connie Willis, as you might expect, gives the theme a comic twist with a look at what the movie-going experience might be like in a few years' time. And Neil Gaiman, unpredictable as ever, offers a fantasy tale that refuses to fit into any neat category—

or to conform to anyone's expectations of what might happen next.

Like the previous cross-genre anthologies by Martin and Dozois, this one brings a rich array of talent to a theme that admits of a wide range of approaches—and the stories deliver the goods. Don't miss it.

## **HARRY HARRISON!**

### **HARRY HARRISON!**

**It Seemed Like a Good Idea  
at the Time**

**By Harry Harrison**

**Tor, \$25.99 (hc)**

**ISBN: 978-9-7653-3308-7**

The title of Harrison's autobiography echoes that of his most famous novel, *Make Room! Make Room!* Anyone who's read his fiction already knows that Harrison was a master storyteller, so it's no surprise that he makes a good story of his own life, much of which was spent abroad. This already gives it a dimension missing from the biographies of most writers, whose workday is usually spent alone in a room, trying to turn blank paper into something marketable.

Harrison moves fairly quickly through the first few years of his life. The only child of a family with Russian Jewish and Irish roots, he was born in Connecticut in 1925, and brought up in Brooklyn, New York, where his family moved when he was two years old. He discovered SF magazines at an early age, and, like many New York kids of his generation, became a fan almost before there was a name for it. And, like some of those other kids, in the years after World War II (where he served in the Army Air Corps, never seeing an active war zone), he found his way into the professional SF world, first through comics, then through writing whatever he could get someone to pay for: westerns, romance, thrillers, and eventually science fiction. He was doing as much art—and art direction—as writing.

But given the vagaries of the freelancer's lifestyle, Harrison—who was by the mid-1950s married to his wife Joan and starting to raise a family—decided to

reduce his expenses by moving somewhere cheaper than New York City. His first try was Mexico, where he lived in a newly built motel in a little market town, Cuautla. He quickly learned that what to most Americans was a starvation wage from writing would enable him to support his family in fine style south of the border. And he began work on what would be his first novel, *Deathworld*.

Further overseas adventures ensued, including stays in England, Sicily, Denmark (for several years), and Ireland. Not surprisingly, Harrison has wonderful stories to spin about all these stays, and of the many friendships he made in England and elsewhere. Particular friends included Brian Aldiss and Anthony Burgess, both of whom shared his belief that SF can be scientifically accurate and well written. These relationships led to a number of anthologies and other projects, in many ways as valuable a contribution to the field as the fiction they wrote.

Other adventures included ghostwriting several "Saint" novels for Leslie Charteris; Harrison especially appreciated their story conferences, which were always held at a first-class restaurant, with Charteris picking up the bill. Another adventure was an enormous film convention in Rio de Janeiro, where all the SF giants of the day—Heinlein, Alfred Bester, Poul Anderson, Robert Sheckley—were flown in first-class to judge the entries. Harrison's sharp-eyed comments on his fellow writers and their foibles are prime entertainment in their own right. There's also a generous selection of photos of Harrison and some of those luminaries.

The one disappointment of this volume is that Harrison's death in 2012 left the memoir incomplete, with little material on his life and work much after the 1970s, when he produced some of his most interesting work. The editor of this volume, David Hartwell, has included in a separate section a handful of essays that Harrison meant to incorporate in the main text. These are fascinating in their own right. They include his observations on



the legendary editor John W. Campbell; on *Make Room! Make Room!* and its conversion (Harrison might use a more negative term) into the movie *Soylent Green*; on Esperanto, the "universal" language of which Harrison was an avid speaker and proponent, and several other topics. The book concludes with a list of first editions of his work.

For anyone who knew Harrison or enjoyed his work, this is a fine way to remember just how much fun he could be.

## **THE COBBLER OF RIDINGHAM**

**By Jeffrey E. Barlough**

**Gresham & Doyle, \$14.95 (tp)**

**ISBN: 978-0-9787634-4-2**

Barlough continues his "Western Lights" series, set in a nineteenth century America where only a few California communities have survived a cataclysmic event, several decades ago, that has severed them from the rest of the world. At the same time, the scenario is complicated by the survival of fauna from the previous Ice Age, including mammoths, saber-tooths and other large creatures threatening the unwary traveler.

This, the eighth in the series, features Richard Hathaway, a musicologist researching the biography of a prominent composer. After a hazardous journey through the dangerous Fenshire, where saber-tooths and teratorms—man-sized carnivorous birds—roam, Hathaway arrives at an isolated home where there is a significant body of materials related to his subject. He quickly finds himself involved in a mystery of some complexity.

He gets the first hints of something amiss when the gatekeeper, a middle-aged woman, appears to be expecting someone else—something of an anomaly, considering the late hour. He enters the place, where his hosts turn out to be an eccentric lot, more or less in keeping with the "country house" scenario so popular in cozy mysteries. But it is clear from the beginning that Hathaway's musicological mission is going to be secondary to solving problems of more immediate importance to his hosts. Lady Martindale, the

mistress of the house, is in a land dispute with a neighbor who wants to build a road across territory they both claim. Her nephew, Edgar, is deep in debt to the local merchants, who have come in a body to collect. And there is rumored to be a curse on the family—the details of which nobody wants to talk about at first.

The material and setting are highly evocative of a Victorian novel, and Barlough's narrative approach and style effectively complement the material. Many of the characters could be straight out of Dickens, if Dickens had written alternate history with mammoths and saber-tooth cats. Another way to look at the book—the whole series, in fact—is as an idiosyncratic, quasi-pastoral version of steampunk, with a very definite bow to the Agatha Christie school of mystery—and plenty of danger to keep you turning pages.

The story moves at an unhurried pace, with interplay between the characters a main focus. Barlough nicely ties up all the various plot strands—there are several beyond what I've mentioned—to satisfactory resolutions by the end. Even Hathaway's work on the obscure composer he came to Fenshire to study eventually comes to a conclusion. If you've enjoyed the author's previous work, you won't need my encouragement to pick this one up. Those of you who haven't tried his quirky blend of mystery, alternate history, and sheer whimsy owe it to yourself to give it a try; for once, the overused adjective "unique" is exactly the right word for it.

## **WOOD SPRITES**

**By Wen Spencer**

**Baen, \$25.00 (hc)**

**ISBN: 978-1-4767-3671-6**

This book, the fourth in Spencer's "Elfhorne" series, follows a pair of twin girls with unusual intelligence and insatiable curiosity. On their ninth birthday, Louise and Jillian Mayer blow up their playhouse—which leads to a series of discoveries, most important of which is that their blood type doesn't match that of their parents.

Naturally, this leads them to investigate who their real parents must be—and more important, who their siblings are, as they discover that they are the product of artificial insemination. Fear not—Louise and Jillian are more than qualified to carry out the investigation.

However, the quest for their family origins has to be shoehorned into their mundane lives as nine-year-old school children—where they are pretty much outsiders to the in-group of richer and more popular girls. To complicate things even more, after the explosion their parents saddle them with a baby sitter in the form of a robot dog—a pony-sized Akita—that follows them everywhere. Luckily for the twins, the dog's programming turns out to be easily hackable, at least for a couple of girl geniuses.

The plot takes an upward turn when the twins discover that one of their hobbies, an on-line story featuring characters from Elfland, is a major hit familiar to all their classmates. Suddenly, their talents are in demand—particularly for the school play, an adaptation of *Peter Pan*. But the demands of the play mean they can only spend part of their time on their quest for their missing family—a quest now complicated by the opposition not only of their parents but of their teachers, who don't want them using school equipment for something unrelated to lessons.

Then, out of nowhere, disaster strikes, and the twins find themselves cut off from all their friends and allies. Spencer pulls no punches; the danger and difficulty of their situation isn't minimized, and their enemies don't particularly care that they are young children.

Those familiar with the previous "Elfhorne" books will undoubtedly get more out of the novel than someone like this reader, who picked it up without having read anything else in the series, but still found it an enjoyable read. Spencer delivers a believable cast of characters who are doing interesting things, and she melds the fantasy plot effectively into our familiar world. Best of all, she spices everything with a broad

sense of humor, much of which grows naturally out of the twins' precocious take on the adult world they're trying to navigate. Lots of fun—recommended.

## **HANDBOOK OF VANCE SPACE**

**By Michael-Andre Driussi**

**Sirius Fiction, \$32.95 (hc);**

**\$16.95 (tp)**

**ISBN: 978-0-9642795-6-8**

This reference book, an expansion of a 1997 chapbook by the same author, catalogues the worlds on which Jack Vance's science fiction takes place. (It omits Vance's fantasy, a somewhat smaller, but to many readers equally interesting body of work.)

Vance was an especially imaginative world-builder, and the societies in which his novels are set are often as interesting as the plots and characters. Driussi gives plenty of space to the characteristics of each society, as well as to the various alien races that commingle with the human characters in a large number of the novels. In some, such as the "Planet of Adventure" series, the interaction of the humans and aliens generates much of the plot.

Given Vance's extensive body of work, and his general tendency to create new settings for a new story (unless it is part of a planned series), it should come as no surprise that the book has entries on some five hundred planets, drawn from thirty-one novels, two short novels, eight novellas, seventeen novelettes, and nineteen short stories. Some, like Godag (home of the Blue Chasch) or Hallomede (where mercenary troops can be hired) can be covered in a single line. Others, like Halma or Marune, get several pages, complete with maps and sub-entries on their languages, customs, and other points of interest. The entries are clear and comprehensive, and the use of a simple code to disguise certain plot points will be welcome to readers who hate "spoilers."

The book is organized alphabetically, by the names of the different worlds or systems it covers. This approach is supplemented by several appendices that

help the reader connect the worlds with the books or stories in which they figure. In some cases, Vance himself provided the only necessary clue by giving his books the name of the world on which they are set, e.g, *Blue World*, *Big Planet*, or the various "Alastor" novels. But for others, the appendices are a world of help.

Driussi has also pointed out linkages between texts, based on internal evidence and references to events or characters from other novels. This allows him, in another appendix, to create a tentative "unified time line," loosely ordering the various books by the time

they are set in. Vance did not, like some of his contemporaries, make any concerted effort to link his entire body of work into a consistent "future history," so the time line has a number of gaps. Nevertheless, the time line gives an interesting perspective on the relationships between the books.

The book isn't so much a reference as a companion volume to Vance's fiction, and its most useful purpose may be to give those familiar with a fraction of that work an incentive to seek out the rest of it. Given the uniformly high quality of Vance's output, that is all the justification anybody would need. ○

# SF CONVENTIONAL CALENDAR

Here's the heart of the spring lineup, climaxing with Memorial Day. I'll be at RavenCon, AlbaCon and BaltiCon. Asimovians should also consider Oasis, MarCon, ConStellation, ConQuest KeyCon, BayCon and MisCon. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of our con(vention)s, a sample of SF folksongs, and info on fanzines and clubs, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22-L, Newark NJ 07102. The hot line is (973) 242-5999. If a machine answers (with a list of the week's cons), leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con five months out. Look for me at cons behind the Filthy Pierre badge, playing a musical keyboard. —Erwin S. Strauss

## APRIL 2015

23–26—EuroCon. For info, write: 10 Hill St. #22-L, Newark NJ 07102. Or phone: (973) 242-5999 (10 am to 10 pm, not collect). (Web) [www.eurocon2015.org](http://www.eurocon2015.org). (E-mail) [info@eurocon2015.org](mailto:info@eurocon2015.org). Con will be held in: St. Petersburg, Russia (if city omitted, same as in address) at the Vasilyevsky Conference Center. Guests will include: Joe Abercrombie, M. Stackpole, J. Halme. European Continental convention.

24–26—RavenCon. [www.ravencon.com](http://www.ravencon.com). Doubletree by Hilton Koger Center, Midlothian (Richmond) VA. Allen Steele, Frank and Brianna Wu.

24–26—OmegaCon Spring. [www.omegacon.org](http://www.omegacon.org). Siren (Milwaukee) WI. SF/fantasy/horror relax-a-con.

24–26—TrekLanta. [www.trektrax.org](http://www.trektrax.org). Marriott Century Center, Atlanta GA. Sean Kenney, Jason Carter, Keith R. A. DeCandido.

24–26—WhoFest. [www.whofestdfw.org](http://www.whofestdfw.org). Addison (Dallas) TX. For fans of Doctor Who.

24–26—PenguinCon. [www.penguicon.org](http://www.penguicon.org). Westin Hotel, Southfield (Detroit) MI. "Open software and science fiction" is the theme here.

## MAY 2015

1–3—Oasis. [www.oasfis.org/oasis](http://www.oasfis.org/oasis). International Palms resort, Orlando FL. General SF, fantasy and horror convention.

1–3—Malice Domestic. [www.malicedomestic.org](http://www.malicedomestic.org). Hyatt, Bethesda MD (near DC). Charles Todd T. L. P. Kelner. For mystery fiction fans.

2–3—Star Wars Weekend. [www.vasc.org](http://www.vasc.org). Virginia Air and Space Center, Hampton VA.

7–10—World Horror Con. [www.whc2015.org](http://www.whc2015.org). Atlanta GA. J. Farris, K. Garcia, C. Golden, T. Piccirilli, C. Ryall. Stoker Awards presented.

8–10—MarCon, Box 141414, Columbus OH 43214. [www.marcon.org](http://www.marcon.org). Hyatt, Columbus OH. Vernor Vinge, Steve Jackson, F. Paul Wilson.

8–10—AlbaCon, Box 2085, Albany NY 12220. <http://www.albacon.org/2014/>. Best Western Airport, Albany NY. M. Lafferty, jan finder (in memoriam).

8–10—ConStellation. [www.constellationne.net](http://www.constellationne.net). Lincoln NE. SF, fantasy and horror con, featuring "The Prisoner" cult TV show.

8–10—OutLantaCon, c/o 2665 Meadow Ct., Chamblee GA 30341. [www.outlantacon.org](http://www.outlantacon.org). Atlanta GA. LGBT fans, and their friends.

8–10—Gateway FurMeet. [www.gatewayfurmeet.org](http://www.gatewayfurmeet.org). Hotel Lumiere, Saint Louis MO. Anthropomorphics/furries.

14–17—KeyCon, Box 3178, Winnipeg MB R3C 4E6. [www.keycon.org](http://www.keycon.org). Winnipeg MB. General SF, fantasy and horror convention.

15–17—NautiCon. [www.nauticons.com](http://www.nauticons.com). Provincetown Inn, Provincetown MA. Age 21 & up only. Members only on hotel premises. Togas!

15–18—CostumeCon, c/o J. B. Dashoff, Box 425 Huntington Valley PA 19006. [www.cc33charleston.org](http://www.cc33charleston.org). Charleston SC. Costuming.

21–25—Misti-Con. [www.misti-con.org](http://www.misti-con.org). Margate Resort, Laconia NH. "Wizarding World's Fair and Carnival." For fans of Harry Potter.

22–24—MobiCon, Box 161632, Mobile AL 36616. [www.mobicon.org](http://www.mobicon.org). Renaissance Riverview. Richard Epcar, J. LaRose, Philo Barnhart.

22–24—TimeGate. [www.timegatecon.org](http://www.timegatecon.org). Marriott Century Center, Atlanta GA. Nick Robatto, K. Grazier, L. Robinson. Dr. Who, StarGate.

22–24—ConQuest. [www.conquestkc.org](http://www.conquestkc.org). Marriott Downtown, Kansas City MO. George R. R. Martin, Brian Sanderson, artist Nene Thomas.

22–24—BayCon, Box 62108, Sunnyvale CA 94088. [www.baycon.org](http://www.baycon.org). Hyatt, Santa Clara CA. Seanan McGuire (Mira Grant), S. P. Law.

22–24—Spectrum Fantastic Art Live. (913) 538-1142. [www.sfalkc.com](http://www.sfalkc.com). Marriott Downtown, Kansas City MO. Fantastic illustration.

22–24—MantiCon. [www.manticon.org](http://www.manticon.org). Bloomington (Minneapolis) MN. David Weber, Timothy Zahn. For fans of the Honor Harrington saga.

22–24—What the Fur?. [www.whatthefur.ca](http://www.whatthefur.ca). Holiday Inn, Pointe Claire, Quebec. Anthropomorphics/furries.

22–25—WisCon, Box 1624, Madison WI 53701. (503) 233-8850. <http://wiscon.info>. Concourse Hotel. Kim Stanley Robinson. Feminism & SF.

22–25—MisCon, Box 7221, Missoula MT 59807. (406) 360-8876. [www.miscon.org](http://www.miscon.org). Ruby's Inn. Author Terry Brooks, artist John Picacio.

22–25—BaltiCon, Box 686, Baltimore MD 21203. (410) 563-2737. Wyndham Hunt Valley Inn, Hunt Valley MD. Jo Walton, C. Vess.

22–25—MediaWest\*Con, 200 E. Thomas, Lansing MI 48906. [www.mediawestcon.org](http://www.mediawestcon.org). Ramada, Comfort Inns. Media, but no media guests.

## AUGUST 2015

19–23—Sasquan, PMB 208, 15127 Main St. E., Suite 104, Sumner WA 98390. <http://sasquan.org>. Spokane WA. Gerrold. WorldCon. \$190.

## AUGUST 2016

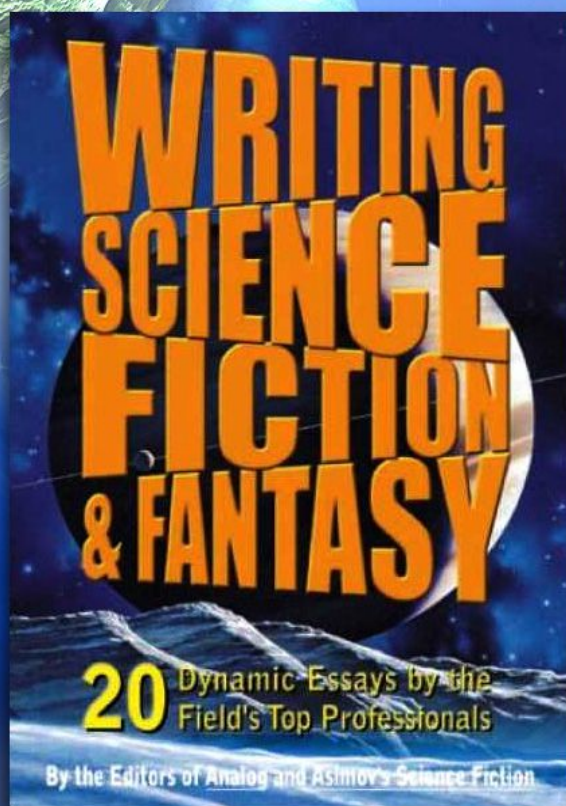
17–22—MidAmeriCon II. [www.midamericon2.org](http://www.midamericon2.org). Convention Center and Bartle Hall, Kansas City, MO. Kinuko Y. Craft. WorldCon. \$150.

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